BY GEORGE F. TAUBENECK - - -

Too Many Ions In the Fire

LARRY HAWKINS, liaison man for the G-E research laboratories at Schenectady, presented a lengthy and bewildering report of the research being carried on by G-E scientists in the "House of Magic" to G-E distributors at their last convention in Cleveland. (See his article on page .. of this issue.)

Studies of ionization and magnetism are especially important just now. But to what varied purposes results of these studies are put! Your head would swim, friend reader, if you were confronted by this multitudinous array of projects.

It's just a case, we support, of too many ions in the fire.

Larry made the interesting notation that G-E scientists "suffer in silence" at the phrase, "House of Magic." Their stunts are just by-products; their real purpose is the discovery and development of new uses for electricity. "House of Magic" seems a little undignified to them, and certainly not descriptive of their excursions into the realm of pure science.

* * *

Tell It to Sweeney

"MIKE" SWEENEY presented a vastly amusing skit portraying the predicament of the order and production departments late last spring—and, incidentally, a predicament in which the order and production departments of many manufacturers found themselves in almost simultaneously—to the aforementioned convention.

First act shows the order department March 6. Cobwebs are growing, the employes are killing time by discussing last night's bridge game, and the only excitement of the day is an order for some hinges—which was later cancelled.

In order to save the bulging warehouses from bursting out at the eaves, four carloads of refrigerators were rerouted by water around Cape Horn—a stroke of genius.

Second act shows the same department June 6. Telephones ringing, distributors swearing, everybody yelling for more refrigerators. Typical cracks of distributors over the phone:

"After 15 years in research and 10 million bucks spent in experiment, why can't you wise guys figure out a way to ship me a refrigerator?"

"If, as I read in ELECTRIC REFRIGERATION NEWS, you're shipping a trainload of refrigerators a day, why can't I get just one car?"

"You guys are always talking about your House of Magic—let's see you pull a refrigerator out of the hat."

Climax and curtain of the skit comes when BILL DRISCOLL of Charlotte, N. C., phones in and wants to know where is that carload he was to have received last week.

"Oh, it's on the way, Bill; should be there any minute now," lies the order clerk.

"Well, what's the number of the car?"

Despairingly, the order clerk borrows a dollar bill and reads off the serial number into the phone: "Y03943725B."

* * *

Nine Empire State Buildings

In the invitation and preliminary program for Camp Refrigeration VII, (the afore&abovementioned G-E distributors's conference) CARL SYNDER, manager of the electric dishwasher department of the General Electric Co., is listed as "Professor of Dishwashers."

That, we submit, is a very practical chair for any university. Thousands of students enroll annually for the dishwashing and table-waiting courses in American colleges, and it is about time they had a professor.

As befits a professor, Mr. Snyder had a gang of statistics. Moreover, they were of the end-to-end variety (but please don't hold that against him). Such as:

"Within 15 years after her honeymoon the average bride will have washed nine stacks of dishes, each stack of which is as high as the Empire State building!"

Try quoting that statement, young man, before you pop the question.

Recently 1,000 Cleveland women awarded the Coveted Hate Medal, he pointed out, to dishwashing. Other pet hates of the housewife, as revealed by this questionnaire, included ironing, scrubbing, washing windows, polishing furniture, mending, care of children, washing clothes, cleaning and dusting, planning meals, care of stoves, care of heating plants, and cooking.

MISS EDWINA NOLAN, home service director, also had some interesting statistics on the profession of housekeeping. According to her figures, the average woman (who does not have an all-electric kitchen) spends at least one-third her waking hours in the kitchen.

Planning and preparing three meals a day occupies three hours a day, 1,095 hours a year. Washing dishes three times a day requires one hour a day, 365 hours a year. Cleaning, sweeping, and other kitchen routine takes up three and one-third hours of each day, 1,205 hours a year. That makes a total of seven and one-third hours per day, 2,665 per year! But don't tell your wife—she might write General Johnson.

Arguments for the all-electric kitchen, thinks Miss Nolan, may be summed up under these heads: modernity, beauty, comfort, health, better cooking, safety, speed, sanitation, and convenience.

Elimination of the down payment on purchase of a second General Electric appliance by a customer who already owns one is the basis of a new G-E merchandising plan to promote the all-electric kitchen.

The "Two-in-One Sales Activity," as the plan is called, operates when a customer has purchased an appliance on the instalment plan and has established his credit by making at least six monthly payments.

He is then given the opportunity to purchase another appliance, without down payment, by means of a new contract which includes his unpaid balance on the first appliance, plus cost of the second, and which provides for monthly payments only slightly in excess of amounts being paid monthly for the first appliance.

* * *

Old Oaken Bucket

In a recent report to stockholders, the General Electric Co. makes an excellent verbal and pictorial presentation of the G. E. Health Kitchen.

Prefacing its delineation of this wonder of modern household days is a description of the old-time kitchen with which many of us were familiar as boys. Like to hear it? Okay:

"Things hadn't gone right all day, and mother was a bit cranky. First of all, the fire in the sullen old monster of a wood range had burned out too soon, and the pump had been frozen solid when she came down to the kitchen in the morning. Then the dough for her week's baking wouldn't 'raise'; the yeast had gone bad.

"And in the afternoon, just as she was looking most bedraggled, who should call but the minister. On a Saturday, indeed! The parlor hadn't been dusted; it hadn't been opened for weeks. And the parlor stove wouldn't draw when she lit the fire.

"Now it was bedtime, and she hadn't finished her baking. Out of the corner of her eye she saw Willie hop stealthily from the room, with his peculiar gait, like a rabbit. Trying to sneak off to bed without his bath again.

"'Willie, come back here! March out to the shed and get some more wood. And Pa, you've got to help me. Here I've been going since six this morning, and I've still got my baking to finish. Take the water off the stove and put it in the tub for Willie's bath.'

"Pa pulled his feet down from the oven door and obeyed, grumbling. Willie came back, and soon the Saturday-night bathing was under way. The old round wash tub was pulled up close to the stove, and Willie squealed and sputtered. Mother was a bit rough that night.

"Grace, who had been sitting quietly, reading *Little Women*, resignedly closed the book and began setting the breakfast dishes on the big table with the checkered cloth. It would be her turn to bathe next. Hours later, when the warm, brown loaves were set out neatly, mother took a hasty bath, blew out the kerosene lamp, and fell into bed completely exhausted."

* * *

'Sparky' Conflagrates

Among our acquaintances are two very exceptional women who carry the significant and delectable nickname, "Sparky." One is tiny ETHEL NORRIS, featured with JOE COOK in "Rain or Shine" and other shows, and scheduled to sing in a Broadway musicale this fall. The other is EDNA SPARKMAN, lively supervisor of refrigeration home economics for Westinghouse.

A short time ago we watched Miss Sparkman direct the production of a home service film. We noted, with amusement, that although the picture showed some handsome Westinghouse cabinets, the food to be photographed was kept in a Frigidaire over against the wall—and so reported it, as a "laugh," in this column.

"Sparky" sparked. And her witty reply is a dandy:

"As you probably know, Jam Handy does the photographing for Frigidaire, as well as Westinghouse, and there were a number of Frigidaires around. It, therefore, seemed foolish to tie up more than one Westinghouse which was needed, when in the Detroit area they had been at such a premium.

"Don't you know that Westinghouse refrigerators are being sold so fast that we can't even keep a supply—let alone having extras around to use as ornaments. We managed to get along with a Frigidaire but, of course, would have preferred to use Westinghouse, had there been as many of those available as there seemed to be Frigidaires."

* * *

Versatile Grocery

Many would have scoffed, a few years back, at the thought that grocery stores might sell electric refrigerators along with onions, soap, and starch. Drug stores, maybe; but not grocery stores. Listen, however, to this:

At Cullum's, one of 15 Dallas, Tex., grocery stores which sell Leonard refrigerators, a Leonard a day was sold during the height of the season. Other grocery stores handling the line chalked up splendid results.

It is the contention of the Leonard Refrigerator Co. that the grocer is in a unique position with respect to contact with housewives on the subject closest to refrigeration—namely food.

With this in mind T. W. MERRICK, sales manager of the Adleta Show Case and Furniture Mfg. Co., Leonard distributor in the territory, conducted an extensive drive on selected stores in Dallas. He set up displays in the 14 selected, supplied advertising matter for the counters, and put the plan in full operation.

* * *

Trail Blazer

A unique hobby is pursued by CHARLES SAMPSON, Leonard dealer in the Boise, Idaho, district.

Some years ago, Mr. Sampson got lost—and got lost in territory that was known to him. While wandering about trying to find his bearings, the thought occurred to him that a stranger would probably never locate himself where a native could lose the way. Thus was conceived the idea of blazing a trail through the mountains and deserts for 5,000 miles around Boise. This hobby now consumes most of Mr. Sampson's leisure time.

"Thousands of travelers through Idaho," runs a story in the *Golden Idaho Motorist*, "rise to bless genial 'Charley' Sampson, the trail blazer who had a dream of service and who has spent many months of his life and many thousands of dollars of his personal funds in making the now famous 'Sampson Trail.'

"This bright orange trail is a fixed system of guides for autoists and traverses the major part of the roads of Idaho and extends across the deserts of Nevada to Elko and Wells."

The trail has been acclaimed in poetry and story in magazines throughout the country, and is especially applauded because it is so clear and understandable. Colorful orange markers, with black lettering, are used to mark the trail beyond question of doubt.

"With a specially equipped truck Mr. Sampson and a painter each year go forth with brush and paint and put up new markers when roads have been changed or renew the old ones. The life of the markers is three years, so that a third of the trail is painted each year and new trails are added as attention is called to places where trails will be of service."

Rocks, fence posts, wrecked automobiles, telephone poles, and other objects which will stand painting are used for the signs.

When the government decided to change the designation of roads from the letter system to numbers, it caused Mr. Sampson some real grief. He had to take up his paint brush and sally forth over the 5,000 miles of his trail, changing every marker.

Letters and evidences of appreciation from all over the country, including one from Senator Borah, are proudly mounted in Mr. Sampson's scrapbook.

* * *

Poet's Corner

A. E. FRESHMAN, district representative for General Electric specialty appliances, sends us this gem for our Poet's Corner:

If you want to air your views
  Write "Refrigeration News"
And your choice of any subjects can
    be wide
  You can plug for SO_2
Or some other gas that's new
  And take some other makers for
    a ride.

But perhaps your mind's asleep
  And your slogan's "make 'em cheap"
Then your letter's like an "ad" on
    bargain day
  For the insulation's missing
And the moving parts are hissing
  Still they'll set it up and print it
    your own way.

Or perhaps you have an urge
  Of new theories you would purge
In this friendly column run by
    George F. T.
  Do not hesitate to write
For 'twill cause a friendly fight
  And just make it long and windy—
    for it's free.

But when all is said and done
  We all know it everyone
That this industry sure needed
    broader views
  So if you really want to know
Who is who and what is so
  You can find it clearly printed in
    the "News."

From Frigidaire to Follies

JANE FROMAN, loveliest lady in radioland, and chief drawing card on the Frigidaire broadcast programs, will have the most important role in the new Follies extravaganza which friends of the late "Flo" Ziegfeld plan to produce this fall. Combination of charm, great beauty, and exceptional singing voice should make Jane one of the brightest musical comedy stars to walk across the Broadway boards in years.

Victor in Real 'Kelvinator Derby'

J. S. "Jud" Sayre, Kelvinator's sales manager, congratulates Jockey Dick Townrow, who rode Live One to victory in the fifth race at Devonshire, Windsor, Ontario, Friday afternoon, Aug. 25. The race was billed as the Kelvinator Derby, in honor of Kelvinator's annual sales contest of the same name, which is now under way. At the right is Mrs. J. K. McCarthy, wife of the Kelvinator district manager at Raleigh, N. C.

THE NEWSPAPER OF THE INDUSTRY

ELECTRIC REFRIGERATION NEWS

WRITTEN TO BE READ ON ARRIVAL

Registered U. S. Patent Office

ESTABLISHED 1926. MEMBER AUDIT BUREAU OF CIRCULATIONS. MEMBER ASSOCIATED BUSINESS PAPERS.

VOL. 10, NO. 2, SERIAL NO. 234
ISSUED EVERY WEEK

Copyright, 1933, by Business News Pub. Co.

DETROIT, MICHIGAN, SEPTEMBER, 13, 1933

Entered as second-class matter Aug. 1, 1927

THREE DOLLARS PER YEAR
TEN CENTS PER COPY

NRA CODE FILED BY COMMERCIAL CASE INDUSTRY

Rules of Fair Practice Are Proposed by Association

WASHINGTON, D. C.—The National Recovery Administration on Aug. 26 agreed to substitute the hours of labor proposed by the Commercial Refrigerator Manufacturers Association for those of the President's Reemployment Agreement, to take effect at once for manufacturers of commercial refrigerator equipment.

The other sections of the code of fair competition for the commercial refrigerator industry (display cases, wall coolers, restaurant boxes, etc.) are awaiting a hearing by NRA officials.

The approved provision relating to hours of labor reads as follows:

"Employes (other than factory or mechanical workers or artisans, outside salesmen and watchmen) shall not be employed in any place or manner for more than 40 hours per week. Hours of any store or service operation shall not be reduced to below 52 hours in any one week, unless such hours were less than 52 per week before July 1, 1933, and in the latter case such hours shall not be reduced at all.

Test of proposed commercial refrigerator code will be found on page 8 of this issue.

"No factory or mechanical worker or artisan shall be employed more than a maximum week of 40 hours averaged over a three months period; provided, however, that such employe shall not be employed more than 48 hours in any one week nor more than eight hours in any one day."

Probably most important of the other sections of the proposed code of fair competition is that which deals with terms of sale. It is provided that no instalment sales shall be made on a less favorable down payment than 20 per cent, the balance to be paid out in 24 months, with no monthly instalment less than $20. All down payments are to be based on the net delivered price, after deduction of credit for any trade-in allowance.

Trade-ins shall not be considered in lieu of cash down or arrival payments. The use of "balloon notes" (making one note in a series substantially arger than other notes in the series) is condemned as an unfair trade practice.

Provision is made against selling below cost. The proposed code would also call for published price lists which shall truly represent the sales price in all cases. Discrimination in price between purchasers of the same class in the sale of the same article is declared to be an unfair trade practice.

Attempts to duplicate the designs or construction of a competitor are designated as unfair trade practice. Trial installations are barred, and attempts to include breach of existing contracts is called unfair, as is the dissemination of false statements about a competitors contract.

PLAN REFRIGERATION DAY AT NEW YORK EXPOSITION

NEW YORK CITY—Sept. 28 has been designated as "Refrigeration Day" at the National Electrical and Radio Exposition which opens Sept. 20 in Madison Square Garden here for an 11-day run.

Special announcements and other devices will be used on Refrigeration Day to direct special attention to exhibits of refrigeration manufacturers and distributors in the Garden.

Sept. 26 will be "Ironer, Washer, and Cleaner Day"; oil heating and air conditioning will be featured on Sept. 29; and Sept. 30 has been set aside as "Radio Day," according to officials of the Electrical Association of New York, sponsor of the exposition.

All available exhibition space on the main arena floor of Madison Square Garden has been contracted for, and 70 per cent of the space on the floor below has been reserved, the management states.

Gas Industry Meets Sept. 25-29 in Chicago

CHICAGO—Leaders in the gas industry from all parts of the United States and from other major countries of the world will meet in Chicago Sept. 25 to 29 to discuss common problems at the International Gas Conference and the fifteenth annual convention of the American Gas Association. Stevens Hotel will be convention headquarters.

Monday, Sept. 25 will be taken up with sectional meetings. Meeting of the main technical and research committee of the A. G. A. natural gas department will be held at 9:30 a. m. in the Stevens' North ballroom.

The manufacturers' section will meet at 10 a. m. in the Crystal ballroom, and the natural gas department will have sessions at 11 a. m. and 2 p. m. in the hotel's North ballroom.

International phases of the gas industry will be studied at the convention's first general session in the Grand ballroom at 10 o'clock Tuesday morning, Sept. 26. Foreign delegates who will make addresses, and their subjects, are as follows:

F. P. Tarratt, president, Institution of Gas Engineers, Newcastle-upon-Tyne, England, "The Gas Industry from the British Standpoint;" A. Baril, vice president, International Gas Union, Paris, France, "Present Condition of the French Gas Industry;" Dr. Fritz Escher, president, International Gas Union, Zurich, Switzerland, "Purpose of International Collaboration in the Gas Industry;" H. de le Paulle, president, Belgian Gas Association, Brussels, remarks; Arthur Hewitt, president, A. G. A., Toronto, "The American Gas Industry."

Second general session is to be held in the Grand ballroom at 10 a. m. Wednesday, Sept. 27. Alexander Forward, managing director of the association, will make a report, and Vice President E. M. Tharp of the Ohio Fuel Gas Co., Columbus, will talk on the executive responsibility for sales promotion.

"Industry Planning for Greater Sales" will be the subject of Conrad N. Lauer, chairman of the National Directing Committee of Executives, Philadelphia. The second session will

(*Concluded on Page 4, Column 5*)

ELECTRICAL CONTRACTORS CODE IS FILED

WASHINGTON, D. C.—A code of fair competition for the electrical contracting industry was filed with the NRA Sept. 7 by the National Electrical Contractors Association.

The code calls for a minimum wage rate of 60 cents an hour. In submitting the code, L. E. Mayer, president of the association, said that the proposed minimum wage rate represented an increase of 25 per cent over the wages of the average electrical worker in 1929.

Absorption--Not in the Refrigerator

Florence Woods, Miss Evansville (later Miss Indiana) in Atlantic City contest preliminaries, expresses more interest in the visage of C. A. Miller, Servel sales manager, than in his explanation of an early model.

Detroit Engineers To Hear Experts On Beer Cooling

DETROIT—New developments in the field of beer cooling will be discussed next Monday night, Sept. 18, when the Detroit section of the American Society of Refrigerating Engineers convenes for its first meeting of the season.

First speaker is to be D. C. Seitz, chief engineer of the Russ Mfg. Co., Cleveland, who will explain the new Russ system of beer control, announced about a month ago.

Second speaker will be Herman Rosenbusch, chief engineer of the Stroh Brewing Co., Detroit. Mr. Rosenbusch will treat the brewing process as followed by the Stroh company, with particular emphasis on the refrigeration phases of brewing.

Mr. Rosenbusch was a speaker at a recent meeting on beer cooling here sponsored by Frigidaire Corp.

So much progress has been made in beer cooling since the last session of the society that John Wyllie, chairman of Monday's meeting, believes the meeting will bring out some entirely new conceptions in beer cooling.

The meeting will be held in the Italian Garden of the Book-Cadillac hotel, beginning at 8 p. m. Everyone interested in the subject is invited to attend.

BASTIAN-BLESSING CO. TO MOVE ITS PLANTS

GRAND HAVEN, Mich.—The Bastian-Blessing Co., manufacturer of soda fountains and beer-cooling equipment, will reopen operations at its factory here within the next two months, according to announcements made by James W. Oakes of the local board of commerce after a conference with L. G. Blessing, president of the company.

The Cleveland plant of the Bastian-Blessing Co. is to be closed and offered for sale and the Chicago factory will also be shut down, the announcement states.

Machinery from both plants will be moved to Grand Haven and manufacture of beer-cooling equipment, bar equipment, beer pumps, soda fountains, and kindred products will be conducted here. Peak employment will require 500 workmen.

NORGE PRICE INCREASE DUE SEPT. 15

DETROIT—List prices on Norge electric refrigerators will be increased from 5 to 10 per cent, the increase to take effect Friday, Sept. 15, according to announcements sent to the field organization from the offices of the Norge Corp. here.

Dedicating a Winter Playground

Not Africa, but Palm Beach is the setting for this picture. The staff of Domestic Refrigeration Co., Frigidaire distributor, helps dedicate the Tropical Jungle beer garden.

GRUNOW SELLS 70,000 UNITS IN FIRST SEASON

Cabinet and Assembly Plant Moved to Chicago

By George F. Taubeneck

CHICAGO, Sept. 12.—(Special Wire to ELECTRIC REFRIGERATION NEWS)—"We started out to sell 20,000 refrigerators this year. And what happened? We've sold more than 70,000 already! So what? We've got to move into a bigger plant to take care of the orders you fellows are sending!"

That's what Bill Grunow told the assembled distributors of the General Household Utilities Co. (merger of Grunow Corp. and U. S. Radio & Television Corp.) at their inaugural convention in the Lake Shore Athletic club today.

Formerly housing Alemite manufacturing operations, the new Grunow plant at 2638-50 North Crawford Ave. is a block and a half long, and contains 63 per cent more floor space than the George St. factory just vacated. Counting the Marion, Ind., radio plant, the General Household Utilities Co. is now operating in more than a million square feet of floor space.

Grunow refrigerator cabinets, formerly supplied by the Briggs Mfg. Co. of Detroit, will be built in the new Grunow plant on Crawford Ave. Thus manufacture of units, boxes, and the assembly will be concentrated in one place.

Featuring "living tone" and "si-lectrol" automatic tuning, the new Grunow radio line (which was unveiled before the distributors yesterday) includes four table sets and five console models, ranging in price from $29.95 to $160.

Headliner is an 11-tube model with "si-lec-trol" (12 stations pretuned and tabbed on dial) and a 12-in. dynamic speaker, which has a small remote control box. Small enough to be dropped into a greatcoat pocket, this remote control box permits the listener to sit anywhere in an ordinary room, and tune and control the radio without moving from his chair.

Chief of the line is a 12-tube all-wave console which also may be had with remote control. Also in the line is a five-tube battery set.

"We have tossed away millions of dollars worth of radio business by this merger," declared H. C. Bonfig, vice president in charge of sales." Our policy henceforth will be one set, one name, one policy, and merchandising only through regular distributors. Just a short time ago we turned down a 25,000 set order from a mail order house."

Mr. Bonfig presented Dr. J. D. Jordan, M. W. Kenney, J. H. Pressley, D. E. Foster, and A. R. Constantine of the engineering department, and asked that they take bows for developing "living tone."

Beginning with a double-page spread in four colors in the Oct. 21 *Saturday Evening Post*, an extensive national advertising campaign on both Grunow products will be placed, according to

(*Concluded on Page 4, Column 1*)

PRESSURE GAUGES PART OF NEW BEER DISPENSER

CLEVELAND—Scientific Beer Dispenser Co. of this city is introducing into this country a type of beer dispensing and cooling fixture which has been widely used in Germany, according to A. Buehler, in charge of sales for the company.

The draft arm section comes in two styles, one being a circular section somewhat similar to the Temprite unit which is used with Brunswick-Balke-Collender bars. The other style is a T-shaped upright, with a water spigot in the center with two beer draft arms on each side.

A feature of the unit is pressure gauges mounted in the base of the section, which enables the dispenser to determine the pressure at which beer is being dispensed. A regulating valve which fits in under the workboard makes pressure control easy and convenient.

The beer is cooled by means of a sweet water bath. Temprite cooling units are also applicable to either model, according to Mr. Buehler.

BY GEORGE F. TAUBENECK - - -

Rain of Bullets? Pooh, Pooh

Refrigerator salesmen who face a dozen busy housewives a day may be acquiring the stuff from which heroes are made—judging from bravery displayed recently by Deputy Sheriff JOHN C. MOON, who, until last January, had been a refrigerator and radio salesman in Detroit for 15 years.

It was Deputy Moon who walked slowly and calmly into the pistol fire of Irvin Pyle, leader of the recent Wayne County (Detroit) Jail break, did some two-fisted pummeling on the face of the escaping prisoner, and put him back behind the bars.

The former refrigerator salesman had a pistol, too, but didn't do much with it. At the time of the jail break, his experience as a pistolman had been limited to some practice shots at tin cans made when the gun was given him at the first of this year. He fired four times at the jail breaker, but admitted later that his aim was bad.

When Pyle began shooting at Moon from behind a telephone pole, the deputy grew afraid that a bystander might be hurt. So he walked calmly across the street toward Pyle while the latter took pot shots at him, then pounced on the criminal when his gun jammed.

"When he kept on shooting, I got mad. A fellow like that is liable to kill someone. So I socked him," was the deputy's comment after the incident.

• • •

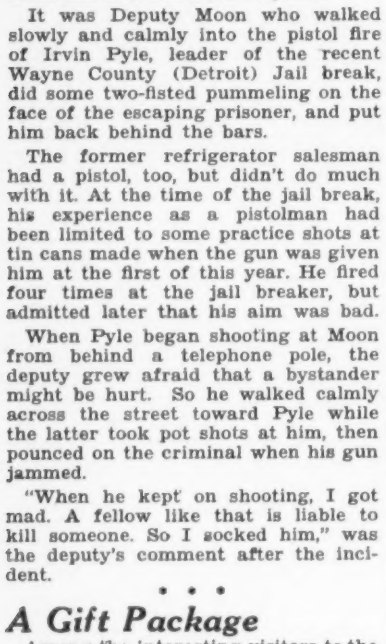
A Gift Package

Among the interesting visitors to the office of the NEWS last week were PAUL JONES, Servel advertising and sales promotion manager, RALPH DOUGLASS, who went down with the ship as advertising manager of Copeland, BILL RORISON, Electrolux publicity man, and PAUL FORSYTH of Wagner Motors.

Mr. Jones and his charming wife went to the Harmsworth Trophy races with us Labor Day, and saw GAR WOOD'S seven-ton speedboat lick HUBERT SCOTT-PAINE'S little craft from England.

Rorison dropped in with some ideas and plans. Says the advent of the air-cooled Electrolux will boost gas refrigerator sales totals higher this year than ever before.

Forsyth, who is one swell gent, had some interesting figures and statistics for us. And a present. The present, ladeez an gennemun, we're going to show you herewith (see engraving below).


1 DOZEN
No. 188
NEMA
WORM CAPSULES
REG. U. S. PAT. OFF.
U. S. Patent 1703377.
Tetrachlorethylene
(Chemically Tested)
0.2 CC. (3 MINIMS)
For the destruction of large Roundworms (Ascarids), and Hookworms and their expulsion from Animals and Poultry.
PARKE, DAVIS & CO.
DO NOT STORE IN A HOT PLACE

Although NEMA worm capsules are made right here in Detroit by Parke-Davis, Mr. Forsyth spotted them in Cincinnati; and, with great glee, brought 'em over to us.

Lest there be any misunderstanding, we want it known right here and now that this is what we consider a laugh. No insult intended.

• • •

Bellylaugh Dept.

FRED SHAW, enterprising young man who heads up the Brooke, Smith & French advertising agency, tells us this prize yarn:

"A pretty young Portland, Oregon, matron, was just about to bathe before dinner guests arrived, when she remembered she hadn't left instructions for the iceman, so—

"She hastily wrapped herself in a bath towel and ducked onto her screened-in porch to place the ice card, when—

"She heard footsteps approaching. Wildly she dived into the tiny mop and broom closet off the back porch to evade, as she supposed, the iceman, but—

"It wasn't the iceman; it was the meterreader, and the meter was in the mop closet; and—

"The astounded meter man found a frantic young matron cowering behind her towel and the mop handles, and—

"Her attempt at explanation is an all-time classic of embarrassed repartee. She said: 'I—I was just waiting for the iceman'."

• • •

The First Reader

As your faithful clipper of newspapers and tearer of magazines, we have four little items to relay this week.

First of all, Westinghouse is advertising its unit air-conditioner as a specific for colds. Headlines the advertisement: "Public Enemy No. 1.... The Common Cold. . . fight it with Air-Conditioning.

"Acute Coryza (alias The Common Cold) exacts more tribute every year from American business than all of the racketeers combined. Annual expense amounting to $1,000,000,000 has been laid at its door.

"A mysterious enemy, this Coryza . . . little enough is known of his habits and methods of attack. . . yet general opinion agrees to this: KEEP MEMBRANES OF THE NOSE AND THROAT IN HEALTHY CONDITION AND YOU HELP TO FIGHT OFF COLDS.

"Westinghouse Unit Air-Conditioners strike this public enemy at his very source . . . the parched under-humidified air so prevalent indoors during Fall and Winter. For air-conditioning, as provided by Westinghouse units, is not merely summer cooling but an electrically maintained indoor climate . . . with temperature, humidity, filtering and air circulation kept at the proper health and comfort levels twelve months of the year.

"Lost time of employees due to colds, 'flu,' and kindred ailments; impaired efficiency in working hours; or higher rates for employee group insurance often cost more than air-conditioning . . . without giving any of its benefits."

Second tearsheet is from *Printers' Ink* for August 31, and in it Frank Goodchild (president of J. and J. Cash, Inc.) tells how he has his salesmen report to him via dictaphone. Listen to him tell it:

"I may be a bit of a crank about getting reports in. I want and need the information they bring; for they signal 'Stop!' or 'Go slow!' or 'Full speed ahead.'

"I want the kind of information that the men write into their reports. I want, also, the kind of information that they would convey to me if they could talk to me, as often as they cared to, in person.

"A salesman isn't much of a writer. He doesn't need to be. But he knows how to talk; for talking is his business.

"So I have instructed each of them to talk—when he feels like talking to me—into a dictating machine.

"The dictating-machine company installs a machine free of charge for the salesman's use. At the end of the day, then, he sits back in an easy chair and tells me all about it. He talks to me just as if he were in my office. He tells me the events of the day.

When he has finished, he puts the cylinder into a special carton, furnished by the dictating-machine company. For 12½ cents in postage, he mails the cylinder to headquarters.

"It arrives here along with the other mail; and while the other mail is being opened, a typist transcribes the cylinder in duplicate.

"The original comes to me, and the duplicate goes out to the salesman in the field who talked the message.

"The plan brings in much valuable data. It lightens the salesman's 'paperwork' burden. And, because it is informal, it makes possible a close, personal contact between headquarters and the men in the field."

Item No. 3 comes from *The Detroit Free Press*, which carried in its Sept. 5 issue a story under the intriguing headline, "Refrigerated Couple Find Romance Changes but Little." And here's what it's all about:

"With an idea of proving something or other, one of the new movie enterprises soon to get under way deals with imaginable events of 1983.

"The story starts with the present year when a young couple out of work and anxious to provide for their dependents, agree to give themselves to the scientific experiment of being incased in ice for a half-century.

"After the girl and boy, to be played probably by Miriam Hopkins and Cary Grant, are placed in cold storage the tale advances to 1983 and the release of the couple from their frozen refuge.

"When they step forth alive and well, they meet a strange world that includes governmental supervision of everything from the home and rearing of children to a conquest of germs, an extension of the life span, less work, games, sports and hobbies of all kinds, noiseless, dustless, smokeless cities, controlled weather, wide culture and knowledge of the arts, and clothes, made from chemicals, remarkable for their brevity.

"Despite this outline of the story written by Thompson Burtis, the author says the picture will be a straight comedy and not a melodrama or scientific adventure.

"He says that the living conditions of 1983 were suggested to him by educators, research workers, doctors, scientists and men of that type who assert that the most fantastic and improbable happenings to a 1933 mind might easily become accepted facts and practical 50 years hence.

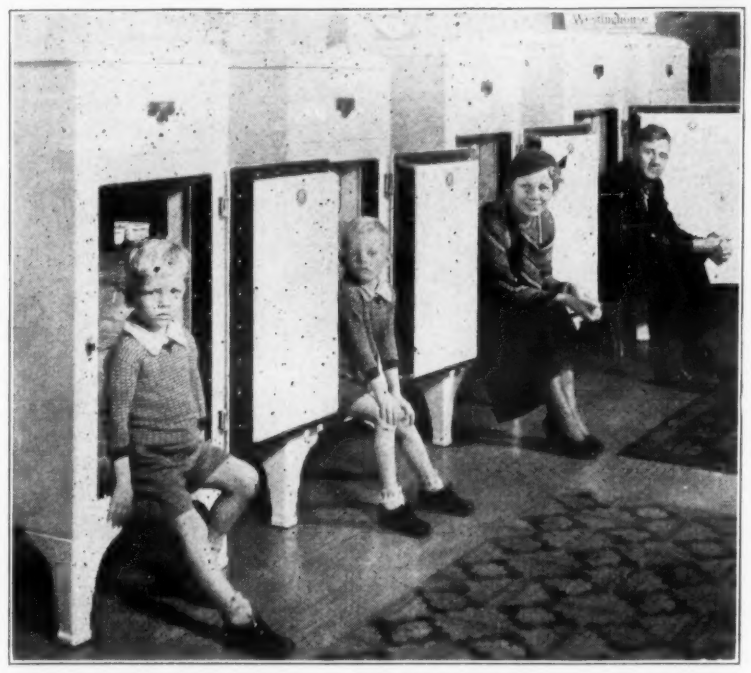
"The catch to the film story is the climax. The refrigerated young couple "melt" with love for each other and pass up a two-by-four glass and aluminum apartment and a state-reared family to work out their own problems in a rose-trellised cottage with the privilege of loving and rocking their progeny to suit themselves."

Fourth tearsheet is the front page of the Sept. 1 *Cold Selling Talk*, the salesman's pepsheet which able GIL BAIRD of Fuller & Smith & Ross, Cleveland, puts out for the Westinghouse refrigeration department.

We credit Gil with the major news scoop of the year. He sleuthed down the news that Columbus has discovered America. Here is his front page banner headline:

Columbus Lands First Place

Igloos for the Family Circle



The family of George W. Morris, who operates an electric shop in Lihue on the island of Kauai (Hawaii) visited Mansfield recently and demonstrated how to keep cool. Left to right: Buddy, Buster, Mrs. and Mr.

Hi-Ya Mister

Ralph Leavenworth, genial Westinghouse advertising manager, grins pleasantly before entering the offices of Westinghouse Electric Supply Co. of Detroit.

John Carter Tells Us About Our B.O. And Halitosis

JOHN CARTER, who lives in West Springfield, Mass., is a man of discernment. A short time ago he took occasion to tell us just where he stands with regard to ELECTRIC REFRIGERATION NEWS, and to us, of course, that was interesting and instructive.

"Your publication is 'Written To Be Read On Arrival,' and I have for many years absorbed it with my Monday breakfasts. As a rule, the breakfast is the more uniformly digestible of the two."

Now there's a dandy. Right hook to the jaw. Editor wobbles and clinches. But John soothes with:

"Your paper plays an important part in the refrigeration business, and it forms a strong link to connect its separate readers with the complex and fast-changing field of activity in which they earn their living."

Editor rallies. Lifts chin bravely, only to have John bash it again with a left swung from the shoestrings:

"It is necessary to read your paper with a lot of selection. Some items are dependable. But too many of them have been printed blindly, having taken for gospel truth whatever statements an over-optimistic distributor or sales promotion man may have given you. I think you have improved in this respect, however, during the current year."

Carter has Editor on the ropes. As Editor staggers out once more to prove he can take it, Carter sends him down for a long count with this wild haymaker:

"Misplaced emphasis gives your paper a distressing lack of balance. Must you really print every detail, however puerile, of every ephemeral sales contest? Do you have to report every ballyhoo release, and every labored whimsy of convention stage management?"

The referee being DAVE BARRY, a long time elapses between his counts of "One" and "Nine," at which point Editor arises groggily. Carter takes pity, and holds up Editor with:

"Your series of travelogues, showing the state, and the state of mind, of the industry in various parts of the country are candid, instructive, and interesting to all of your readers," and by saying that he approved the material on A Century of Progress, too. Continuing:

"You are strong on personalities. I think this is a good feature. We all like to go over the lists and descriptions of prize-winners, delegates, officers, speakers, and so on, and thus to keep in touch with old friends in the industry.

"Your lists of specifications, and your regular departments on Engineering, Service, Patents, Air-Conditioning, and Beer Cooling are valuable and undoubtedly of general interest. Your reprints of technical papers are a real service to your readers, not all of whom can have ready access to the publications of engineering societies.

"You are alert to protect the interests of the industry, whenever they are threatened by inequitable governmental action or by such misleading propaganda as is now emanating from the cancer authority of Minneapolis."

Editor now completely recovered, confident, dancing around the ring. With a deadly smile, Carter slips in and socks Editor into dreamland with:

"I am regretfully of the opinion, however, that your advertisers' interests generally come ahead of your subscribers."

• • •

What's Your Answer?

The most impressive feature of Mr. Carter's criticism is the fact that he took the trouble to write it, and in longhand at that. Evidently he is a faithful and discriminating reader of the NEWS and one who is sincerely interested in its progress.

There are answers, of course, to Mr. Carter's criticisms. We DON'T print "every ballyhoo release" for instance. Publicity which comes into this office is always checked and rewritten. Far more of it is discarded than used.

Frequently we have been criticized for printing items about big sales from various distributorships.

"My man down there says that story is a lot of hooey, and that said distributor isn't getting that business at all. On the contrary, we're getting it."

And time after time a recheck shows that the story as printed in ELECTRIC REFRIGERATION NEWS was right, and that the competitive salesmanager was misinformed by the local man he had put on the pan.

E. G. BIECHLER, president of Frigidaire, says that the biggest surprise he ever had came when he first read the Nema statistics on industry production over the last few years. He had no idea so much business had gone to competition. According to reports from his men, Frigidaire had been getting practically all of it.

And in re the sales contests: Do you know, Mr. Carter, how much money the industry *pays outside agencies* to get worked out for them exactly such details of sales contests as are printed in the NEWS? The answer is Plenty! The Manz Corp. of Chicago earns a nice income doing just that sort of thing.

Lots of people don't think much of sales contests. But we also have evidence of sales promotion managers clipping these stories carefully, and following detail-by-detail the procedure outlined.

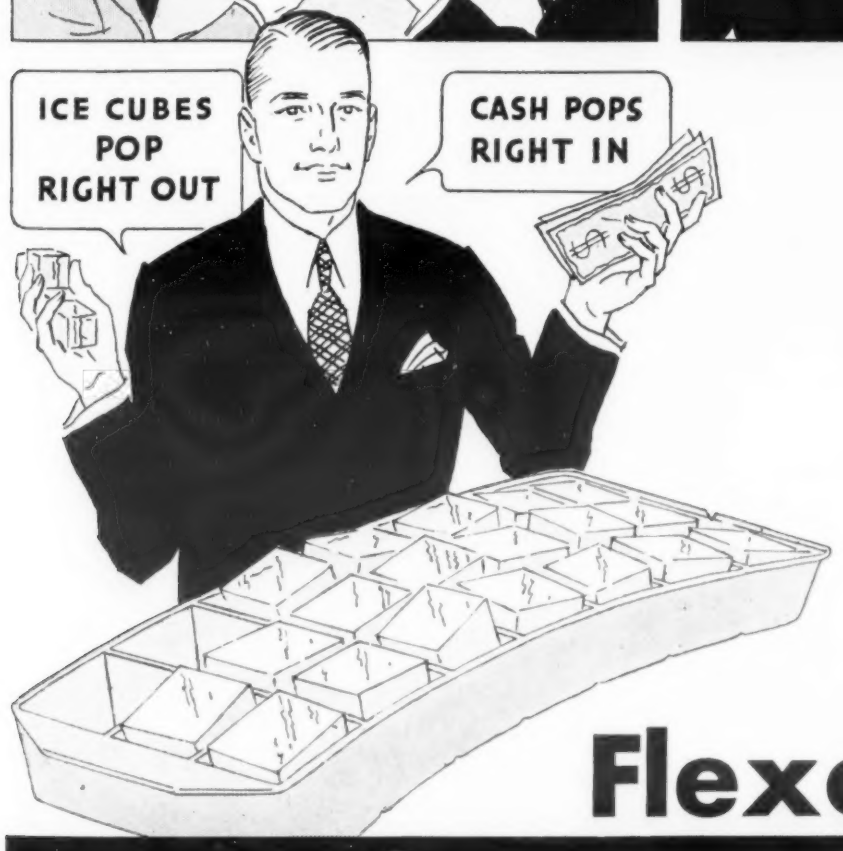
Perhaps, though, *your* answers are better than ours? What do YOU like and dislike in the NEWS? Write us. We can take it!

Westinghousing the Hula

Thelma Olds (left) and Gertrude Smith of Hawaiian Electric Co., dress up in the traditional leis to welcome the new Westinghouse line.

BABY TURNS REFRIGERATOR SALESMAN

STOP IN FOR A SECOND, BILL, AND I'LL MIX A COUPLA COLD DRINKS.
SOUNDS SWELL, JOE, BUT I HATE TO PUT YOU TO ALL THAT TROUBLE.
NO TROUBLE AT ALL. ONLY TAKES A SECOND—OH, HELLO THERE, BABY! GET SOME ICE CUBES LIKE A GOOD GIRL, WILL YOU, WHILE I FIND SOME GLASSES?
SURE, DADDY.
THAT KID CAN'T GET ICE CUBES OUT, JOE. SHE'LL DROWN HERSELF.
SURE I CAN GET THE ICE CUBES FOR DADDY. SEE? IT'S EASY.
WELL I'LL BE— SA-Y-Y! WHAT KIND OF ICE TRAYS ARE THOSE, ANYWAY?
FLEXIBLE RUBBER TRAYS. HAVEN'T YOU SEEN 'EM? LET YOU GET ICE CUBES AT THE REFRIGERATOR INSTEAD OF OUT OF THE KITCHEN SINK. GREATEST TIME SAVERS EVER INVENTED.
I'LL SAY THEY ARE! I'M GETTING SOME QUICK FOR THAT OLD REFRIGERATOR OF MINE. WELL— HERE'S HOW!
NEXT DAY
HOWDY. CAN I GET SOME FLEXIBLE RUBBER ICE TRAYS FOR AN OLD REFRIGERATOR OF MINE?
YES INDEED. BUT MAY I SHOW YOU SOME OF OUR NEW REFRIGERATORS WHILE YOU'RE HERE?
SAY! THAT'S GREAT! RUBBER ICE TRAYS AND EVERYTHING! I NEED A NEW REFRIGERATOR ANYWAY. GUESS I'LL LET YOU PUT ME DOWN FOR THIS ONE.
YOU'VE MADE A WISE SELECTION, AND I'M CERTAINLY GLAD YOU CAME IN FOR THOSE RUBBER TRAYS.



Often a Flexible Rubber Tray is a short cut to a refrigerator sale

FLEXOTRAY—THE ONE DEVICE THAT MAKES AUTOMATIC REFRIGERATORS REALLY MODERN

Flexible Rubber Trays and Grids are no longer a luxury. In the past three years they have become so amazingly popular that *more than 2,000,000 have been sold!* They're now used as standard equipment by all leading refrigerator manufacturers.

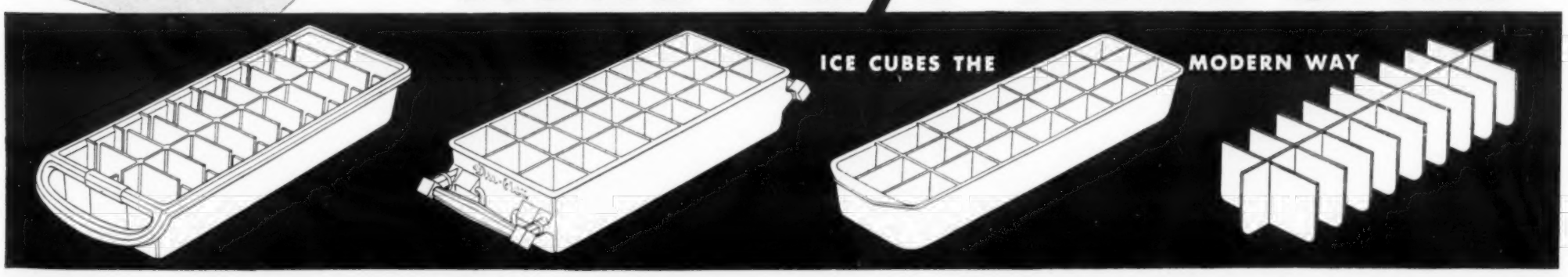
Aside from making your refrigerator easier to sell, Flexible Rubber Trays and Grids make wonderful door openers for your salesmen. And sold as accessories they create important extra profits.

This is *fact*, not fiction—as any experienced refrigerator dealer or salesman will tell you. He'll tell you that without Flexible Rubber Trays or Grids, you can no longer call a refrigerator really modern.

This being the case, it will pay you to insist that Flexible Rubber Trays and Grids be included as standard equipment in all the refrigerators you sell. By so insisting, you'll sell *more* refrigerators—and sell them *easier*.

Write today—to the manufacturer of your refrigerator or direct to us—and get full details about these new money-makers. And be sure to stock Flexible Rubber Trays and Grids without a moment's unnecessary delay. The Inland Manufacturing Company, Dayton, Ohio.

Flexo Trays · Flexo Grids



Quickube tray

The Quickube Tray is made exclusively for Frigidaire. It releases ice cubes instantly—one at a time or a whole trayful—with just a slight pressure at the bottom of the tray.

Duflex tray

The Duflex Tray, made only for General Electric, combines flexibility with rigidity by means of stainless steel reinforcing bars. Cubes are instantly removed at a finger touch.

Flexo tray

The Flexo Tray shown here is a flexible rubber tray, used as standard equipment by Kelvinator, Leonard, Sparks-Withington, Mayflower, Williams, Apex, and many others.

Flexo grid

This newest Inland invention combines fast freezing with easy removal of ice cubes. Flexo grids are now standard equipment on Frigidaire, General Electric and Westinghouse.

Grunow Plans Advertising Campaign On New Radio Line

(*Concluded from Page 1, Column 5*)

Duane Wanamaker, director of advertising.

Other Grunow distributor and dealer radio advertising material now available, Mr. Wanamaker announced, includes:

Window display lithographed in five colors, consisting of two large display cut-out cards, seven small cards with spot for price to be placed on models, two window streamers, six round "bull's eyes" to paste in window showing features of sets, all packed in one package which may be shipped to individual dealers by parcel post.

Outdoor poster paper (billboard 24 sheet) three designs to be available, one immediately; furnished on request without charge properly imprinted with dealer's or distributor's name and express prepaid to posting company or to dealer.

Authorized dealer decalcomania for window. This sign is in outline so that insignia itself does not cut off view of any article in window, and the window may be washed over it, without injury.

Envelope stuffers in three colors to show natural wood of sets. Stuffers contain pictures and complete descriptions of entire line.

Movie slides—two designs will be available, and will be furnished on written request from distributors or dealers, properly imprinted without charge.

Truck or store banners — lithographed, 10-ft. cloth banners with eyelets for hanging or tacking on interior or exterior of store or trucks.

Broadcast recorded programs—15-minute programs on records (10 of them) will be supplied for use on local stations for spot broadcasting. These programs feature a symphonic dance orchestra, with six acts, each doing specialties. Each program contains a brief announcement regarding Grunow radios at the opening and Grunow refrigerators at the end. The theme is played for one minute at end of record during which time local station announcer can tell what local dealers handle Grunow products.

Mats and electrotypes—a plentiful assortment of prepared dealer advertising for newspaper use is available in mat or electrotype form.

Neon dealer window and inside signs—two types available.

Tire covers—available in two styles.

Broadside for distributor to send to dealer—containing complete pictures and descriptions of all sets, and reproduction of *Saturday Evening Post* double-page spread in four colors exactly as it will appear in this magazine. Broadside will be imprinted in large type with distributor's name.

Followng Mr. Wanamaker, Hays MacFarland, head of the advertising agency which bears his name, exhibited a series of charts in an effort to prove that American business is booming upward again, and that the radio replacement market is ripe for plucking.

Came then a skit, "Living Tone vs. Mechanical Tone," in which Robby Robot (played by Sales Promotion Manager Jimmy Davin, completely encased in a robot disguise) operated a tinny nickle-in-the-slot player piano, after which District Representative Otto Bowman, attired in full dress suit, played a grand piano in accredited concert style. This contrast, it was intimated, represented the difference between Grunow "living tone" and the tone of other radios. Coming advertising will feature the idea.

J. G. Condon, senior partner of Ryan, Condon & Livingston, attorneys, and J. Clark Coit, chairman of the board of General Household Utilities Co., explained to the distributors reasons for and ambitions of the new merger.

Distributors Present

The following distributors were present at the convention:

Wm. Schlanger and Leroy Winters, Anthracite Radio Sales Co., Scranton, Pa.; W. E. Custis and R. C. Hager, Arnold Wholesale Corp., Cleveland; Z. P. Richardson, Jr., and L. S. Smith, Benton-Bailey Co., Inc., Richmond, Va.

F. M. Bewsher, Bentley Bewsher, Tampa, Fla.; C. M. Bachrach, Sam Brown, R. G. Dorrance, R. G. Dorrance, Jr., and B. H. Tron, Brown-Dorrance Electric Co., Pittsburgh.

N. S. Brown, W. H. Cook, W. W. D'Aney, B. S. De Groat, O. G. Morgan, A. W. Vogel, L. N. Westmark, and Fred A. Wiebe, Brown Supply Co., St. Louis.

Charles Keipper, Charles B. Keipper, and C. J. Pagel, Buffalo Nipple & Machine Co., Inc., Buffalo; F. M. Bultman, Cain Radio Co., Jacksonville, Fla.

A. U. Cloud, R. E. Cloud, and A. L. Zichgraf, Cloud Bros., South Bend, Ind.; Glen H. Connelly, O. Dean Connelly, Kenneth Connelly, J. W. Felsch, and W. R. McCurdy, F. B. Connelly Co., Portland, Ore., Billings, Mont., Spokane, and Seattle.

S. H. Cumming, Ed. Dollard, and R. W. Malone, Cummings & Emerson, Peoria, Ill.; H. Hilt Hansen, The Geo. H. Eberhard Co., San Francisco; J. L. Ausban and E. E. Forbes, Sr., E. E. Forbes & Sons Piano Co., Birmingham, Ala.

A. K. Clifford, Peter Front, S. S. Front, and H. R. Markett, The Front Co., Wheeling, W. Va.; J. O. Smith and Wheless Gambill, Jr., Gambill Distributing Co., Nashville, Tenn.

W. H. Crusey, W. C. Griffith, C. W. Hyde, G. F. Hyde, A. J. Spicer, and B. H. Wilson, Griffith-Victor Distributing Co., Cincinnati, Indianapolis, and Dayton.

M. L. Hogan, D. E. Anderson, L. W. Cohen, Jay Gordon, H. A. Malcom, and C. E. Swarts, Grunow Illinois Co., Chicago.

E. O. Borglin, A. J. Newman, and E. J. Petersen, Grunow Northwest Sales Co., St. Paul; Herbert Fink, I. Lepowitz, and B. Reichman, Grunow Product Sales Co., Newark.

Les Wheeler and John J. Hahn, Hahn & Wheeler, Rochester, N. Y.; Wm. M. Hardt, Hardt Music Co., Winona, Minn.

F. P. Blake, W. J. Callahan, F. G. Cooper, C. H. Krause, L. Croetzman, and J. A. Watt, Harger & Blish Co., Des Moines, Iowa; F. L. Holland, Hughes-Bozarth-Anderson Co., Oklahoma City; R. G. Barnes, J. W. Bothwell, M. F. Hegerle, R. W. Higgins, and M. P. Schauer, Kelley-How-Thomson Co., Duluth.

W. C. Kluge, T. A. Lester, V. H. Maurer, W. B. Jones, and N. D. Weinberg, Vernon Maurer Co., Milwaukee; Rudy Browd and P. C. Ford, H. A. McRae & Co., Troy, N. Y.; E. J. Goetze and Norman Wilson, Midwest Grunow Co., Kansas City, Mo.

H. Bird, H. K. Hamann, and J. C. Moore, Moore, Bird & Co., Denver; C. H. Ackley and Roy Simmons, Morris Distributing Co., Binghamton, N. Y.; H. F. Shepherd, R. F. Shepherd, and E. R. Young, Motor Car Supply Co., Charleston, W. Va.

S. F. Louchheim, August Wilkening, and Carl Wilkening, Motor Parts Co., Philadelphia; D. F. Goldman, North American Radio Corp., New York City; N. S. Shobe, Orgill Bros. & Co., Memphis, Tenn.

V. J. Bloemer, A. L. Burtz, J. W. Frazer, T. N. French, Jr., H. W. Harlow, G. F. Puthuff, and J. D. Morris, Peaslee-Gaulbert Corp., Louisville, Ky.; H. A. Ellis and C. H. Griffith, Philadelphia Distributors, Philadelphia.

W. J. Parker and F. D. Pitts, F. D. Pitts Co., Boston; C. H. Grove, H. Poll Electric Co., Toledo; R. P. Good, J. R. Good, and S. S. Metz, Radio & Motor Service, Inc., Altoona, Pa.; C. K. Cohn, W. L. Cohn, and B. G. Powell, Radio Equipment Co., Dallas.

C. C. Christiancy and C. H. W. Merrill, Republic Distributing Co., Grand Rapids, Mich.; C. A. Richards, C. A. Richards, Inc., New York City; C. C. Robinson, C. C. Robinson Co., Columbus, Ohio; C. L. Wheeler, Salt Lake Hardware Co., Salt Lake City.

J. W. Sheffield, W. H. Guest, and D. C. Stephenson, Sheffield Co., Americus, Ga.; C. L. Carper, J. W. Sherry, and F. S. Sidles, Sidles-Duda-Myers Co., Lincoln and Omaha, Nebr.; J. P. McMillan, Southern Radio Corp., Charlotte, N. C.

A. B. Siebert, Southwest Distributing Co., Wichita, Kan.; G. A. Rogers, Strevell-Paterson Co., Salt Lake City; H. J. Long, L. F. Turnbull, and R. B. Turnbull, Specialties Distributing Co., Detroit; W. W. True, True & Blanchard, Newport, Vt.

J. A. Bink, C. L. Blesch, D. I. Drucker, J. J. Getreu, G. Matt, B. A. Morgan, and C. C. Peters, Tracy-Wells Co., Columbus, Ohio; Herman Fineburg and Louis Kaplan, United Tire Stores Co., Trenton, N. J.; R. K. Van Zandt, Van Zandt Supply Co., Huntington, W. Va.; I. D. Watson and W. J. Wilson, Watson & Wilson, Inc., Los Angeles; J. A. Hofheinz, Philip Werlein, Ltd., New Orleans.

KELVINATOR FIELD FORCE EXCEEDS DERBY QUOTA

DETROIT—The sales quota set for the period of the Kelvinator Derby contest had been exceeded by 50 per cent at the end of last week.

The Derby contest will close Sept. 16, after which the cash awards will be split among the first three winners on each track, and individual salesmen who won in the Mason classic will be given their award.

On the "Agua Caliente" track for distributor home economists, Angela Allen of the Raymond Rosen Co., Philadelphia distributor, has talked on radio programs, held six cooking schools, and engaged in many other home service activities to take the lead among the 30 distributor home economists taking part in this event.

Miss Allen's prize for winning the third furlong was a pair of black and silver modernistic bookends, appropriately shaped like horses.

The end of the third furlong found seven home economists closely bunched behind the leader on the Agua Caliente track. Carolyn Ely of Boston Kelvinator, with 296 tickets, was a scant nose behind Miss Allen with 298.

GAS INDUSTRY PLANS CHICAGO CONVENTION

(*Concluded from Page 1, Column 1*)

close with a general discussion on the industry and the National Recovery Program.

At the third and last general session, which opens at 10 a. m. Thursday, Sept. 28 in the Grand ballroom, first address will be a "rate structure resume" by H. D. Hancock, chairman of H. L. Doherty & Co., New York City. "The Industry's Achievement in Research" will be discussed by F. C. Wever, vice president of the Brooklyn Union Gas Co., Brooklyn, N. Y.

Other addresses at this session will be: "About Utility Regulation," by Lester Hooker, president, National Association of Railroad and Utilities Commissioners, Richmond, Va.; and "What's Our Job?" by Dr. Harvey N. Davis, president of the Stevens Institute of Technology, Hoboken, N. J.

Sectional meetings scheduled for 2 p. m. Tuesday, Sept. 26 are as follows: accounting section, South ballroom; commercial section, North ballroom; industrial gas section, West ballroom; pubicity and advertising section, North assembly room; technical section, Crystal ballroom.

The president's annual reception (dancing until 1 a. m.) will be held in the Grand ballroom, starting at 8:45 p. m. Tuesday.

Wednesday's sectional meetings, scheduled for 2 p. m., will be the following: accounting section, South ballroom; industrial gas section, West ballroom; technical section, Crystal ballroom; and commercial section, North ballroom. At this session of the latter group, F. M. Banks of the Southern California Gas Co., Los Angeles, will speak on gas refrigeration.

On Thursday at 2 p. m., the Midwest Industrial Gas Sales Council will meet in the Stevens' West Ballroom, and at the same hour will be held the final session of the association's technical section in the Crystal ballroom.

ROCHESTER DEALER WINS NORGE CONTEST

ROCHESTER, N. Y.—Weed & Co., Norge dealer here, was awarded first prize in Norge Corp.'s recent national window display contest.

MODERN PLANT FACILITIES

for producing NEW sealed units:

I - Portable Water Cooler, 62 lbs. complete, ready to plug in.

II - Beer Cooling apparatus 47½ lbs.

III - Small low temperature cooling unit, 55 lbs. ready for cabinet.

IV - "Package-Unit" weight 55 lbs. for domestic cabinet to 6 cu. ft.

Complete B/Ps and specifications. Samples of each ready for inspection.

Unusual simplicity and efficiency of designs assure volume business.

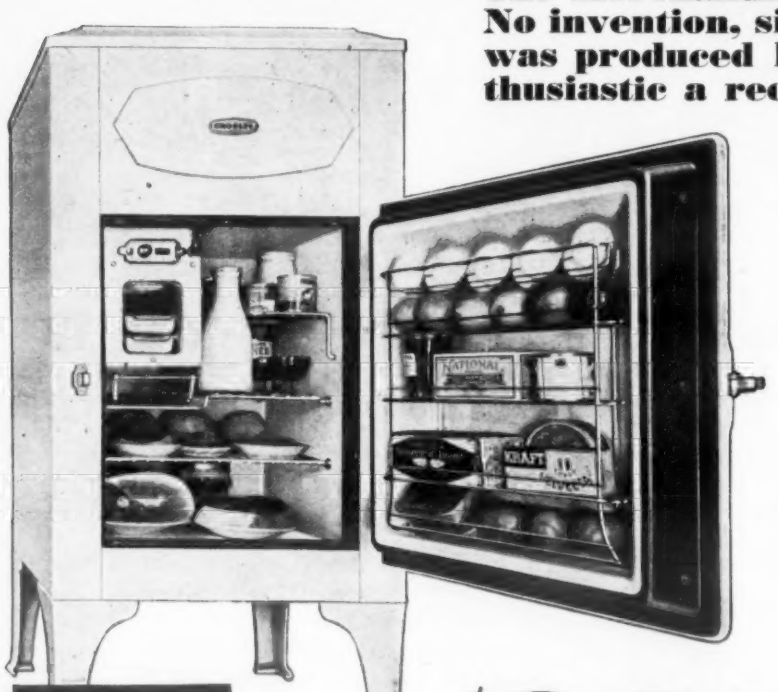
Responses treated in confidence by responsible self-financed company.

Address Box 587
[Electric Refrigeration News

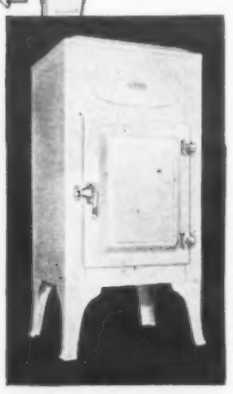
The SHELVADOR

U. S. Patent 1,898,022

The merchandising hit of the times. No invention, since the first ice box was produced has ever met so enthusiastic a reception. Housewives the country over clamor for it!



. . . . only the NEW CROSLEY Electric REFRIGERATOR has it!



Model D-45
(Not Illustrated)
4½ cu. ft. NET capacity; 10.6 sq. ft. shelf space (N. E. M. A. rating). Three ice trays, each with capacity of 21 cubes, 63 cubes in all. Additional space for extra single or double depth tray. 3" insulation at top, sides, bottom and in door. Dimensions: 56⅛" high, 23⅛" wide, 24" deep . . . $99.50

Model D-35
(Illustrated Above)
3½ cu. ft. NET capacity; 8 sq. ft. of shelf space (N. E. M. A. rating). Has two ice trays, each with capacity of 21 ice cubes—42 cubes in all. Additional space for extra single or double depth tray. 3" insulation at top, sides, bottom and in door. Dimensions: 50⅛" high, 23⅛" wide, 24" deep.

Model D-60
(Not Illustrated)
6 cu. ft. NET capacity; 11.5 sq. ft. shelf space (N. E. M. A. rating). Has three standard size ice trays, each with capacity of 21 ice cubes, 63 cubes in all, and one double depth tray for freezing desserts. 3½" insulation at top, sides, bottom and in door. Dimensions: 57⅛" high, 29½" wide, 25⅛" deep $130.00

Remember the inside of Shelvador is recessed to provide for the shelves. The exterior of the door is bulged outward, improving the appearance of the refrigerator and providing space for even more insulation than in ordinary doors.

$89.50 Delivered, Installed, One Year's Free Service

WOMEN see it—want it—*buy* it! That's the history of the new Crosley SHELVADOR Electric Refrigerator. And because of this, Crosley production has grown and grown until today Crosley is far up among the big names in electric refrigeration. Crosley has done in refrigeration what Crosley has done in radio—established a quality-value-price leadership so real and substantial that business flows *naturally* to Crosley dealers. The way to profit is to have *something* that competition cannot have . . . you have that *something* in SHELVADOR.

SHELVADOR means—greatly increased "usable space." It makes the refrigerator "larger." No searching for small things. Everything instantly findable. No wonder women of America rave about it. It's the greatest convenience they ever saw. They all say—"That's what I must have!"

Just think! An electric refrigerator that has made an astounding record for trouble-free service. Marvelously efficient and economical. Instantly controllable. Every worth-while feature. And with it—the SHELVADOR, the remarkable convenience that everybody is talking about. What a combination! Roomy . . . far more than any other refrigerator of equal size. Beautiful. Smart. Quality throughout.

And the price! That's the surprising thing! The price is far lower than other refrigerators of equivalent quality. And they cannot use the SHELVADOR!

See your Crosley distributor. Study every feature. Note the quality. Let the prices speak for themselves. Examine the SHELVADOR. Then you will understand why those who push the new Crosley SHELVADOR Electric Refrigerator sweep all competition before them.

Montana, Wyoming, Colorado, New Mexico and west, prices slightly higher

The Crosley Radio Corporation - - Cincinnati
(*Pioneer Manufacturers of Radio Receiving Sets*)
POWEL CROSLEY, Jr., *President.* Home of "*the Nation's Station*"—WLW

ALL PRICES INCLUDE DELIVERY..INSTALLATION..ONE YEAR FREE SERVICE

CROSLEY SHELVADOR Electric REFRIGERATOR

When Special Coils Are Needed Here's Quick Service

Now Almost 50,000 Larkin Coils in Daily Use

EVERY normal coil requirement can be supplied from our line of 124 Standard Models and Sizes all of which are stocked for quick delivery at Atlanta, Brooklyn and Chicago.

Occasionally an unusual installation requires a special size Coil. These coils are made to order *only* at our Atlanta factory. Our production facilities are geared to fast special order service.

Coils for Beer Service

For merchandising either draught or Bottled Beer Larkin has developed special coils. Literature and data on request.

LARKIN
Refrigerating Corporation
Originator and Manufacturers
ATLANTA, GA., U.S.A.

WAREHOUSES
Brooklyn - Chicago

100% VERTICAL SURFACE

U.S. PATENT No. 1,774,385.

LARKIN COILS

NOW...

WILLIAM C. GRUNOW

is ready with

ANOTHER SENSATION

in RADIO

GENERAL HOUSEHOLD UTILITIES COMPANY

2648-50 N. CRAWFORD AVENUE CHICAGO, ILL.

STATISTICS

Ruthenburg Compares July Figures With Previous Monthly Reports

DETROIT—Unit sales of household electric refrigerators reported for July by members of the Refrigeration Division of National Electrical Manufacturers Association were 106,614 units as compared with 26,794 units in July, 1932, an increase of 297.90 per cent, according to a report issued by Louis Ruthenburg, consultant to that organization.

Mr. Ruthenburg believes that marked price increases are now inevitable because of the sharp rise in material costs which have taken place since the early months of the year.

Members of the Refrigeration Division of Nema were responsible for 80 per cent of the refrigerators sold in 1932, he states.

All members of this group comply with the NRA policies under the Industrial Recovery code for the electrical manufacturing industry which was signed by President Roosevelt on Aug. 4, becoming effective Aug. 15.

Nema sales for July, divided according to sizes of household refrigeration cabinets and types of commercial systems, were tabulated on page 14 of the Aug. 30, 1933, issue of ELECTRIC REFRIGERATION NEWS.

The following summary by Mr. Ruthenburg gives definite figures in analyzing July sales of household and commercial refrigeration by Nema companies.

Unit shipments (household) in July showed the expected seasonal recession. Unit shipments as compared with June, 1933, declined 39.27 per cent and dollar sales declined 36.50 per cent. Average unit price shows an increase of 4.56 per cent from $79.36 to $82.98. It will be noted that while the unit price shows an increase as compared with June, it is still below the low figure of $83.50 for May. The corresponding average unit price in July, 1932, was $98.56, and in July, 1931, was $132.12.

Sales in July, 1933, were so far ahead of sales in the corresponding month of 1932—in which month the reaction from high sales in June on account of the federal tax was evident—as to place the cumulative total well ahead of that for the first seven months of 1932, the actual increase being 20.84 per cent.

Cumulative dollar sales are 3.35 per cent below cumulative dollar sales for the same period last year, and 29.55 per cent below cumulative dollar sales for the corresponding period in 1931.

Commercial unit sales for July show a decline of 15.04 per cent as compared with the corresponding figure in June, 1933. The corresponding decline in dollar sales is 25 per cent.

As compared with July, 1932, the increase in commercial unit sales is 60.06 per cent, and increase in dollar sales is 24.33 per cent.

Average commercial unit price in July declined 11.74 per cent as compared with the average unit price in June, 1933. The decline in average commercial unit price as compared with the same month in 1932 is 22.34 per cent, and as compared with July, 1931, 20.93 per cent.

Commercial unit shipments for the year to date are 12.62 per cent below the corresponding period last year, and 50.34 per cent below cumulative shipments for the year 1931.

Cumulative commercial dollar value is 34.72 per cent below that of the corresponding period last year and 62.55 per cent below the same period in 1931.

Chart I—Monthly Household Sales To Distributors and Dealers

The decline in July sales as compared with the peaks attained in May and June represents an anticipated seasonal change, and the fact that the decline is not more drastic after such outstanding volume as was attained in May and June is most encouraging.

It is interesting to compare the seasonal trend with that developed in 1931. In that year July unit sales declined 24.58 per cent from the average of May and June, whereas this year the decline in July sales from the average of May and June is 39.19 per cent.

Sales to Distributors and Dealers

July, 1933 HOUSEHOLD	Current Month	Same Month 1932	Same Month 1931	% Change 1932	% Change 1931	Year to Date	Same Period 1932	Same Period 1931	% Change 1932	% Change 1931
Units	106,614	26,794	86,419	+297.90	+23.36	660,077	546,220	592,736	+20.84	+11.36
Dollars	$8,846,564	$2,640,903	$11,417,435	+234.98	—22.52	$54,299,769	$56,183,975	$77,074,097	— 3.35	—29.55
Average Unit Price	$ 82.98	$ 98.56	$ 132.12	— 15.80	—37.19	$ 82.26	$ 102.86	$ 130.03	—20.03	—36.74
July, 1933, COMMERCIAL										
Units	12,099	7,558	17,624	+ 60.18	—31.35	63,302	72,448	127,483	—12.62	—50.34
Dollars	$1,357,504	$1,091,799	$ 2,500,619	+ 24.33	—45.71	$ 7,301,039	$11,184,904	$19,500,745	—34.72	—62.56
Average Unit Price	$ 112.19	$ 144.46	$ 141.89	— 22.34	—20.93	$ 115.34	$ 154.39	$ 152.96	—25.29	—24.60

Distributor and Dealer, Factory, Branch and Warehouse, and Total Household Stocks

The fact that distributor and dealer stocks declined slightly in July as compared with June is a healthy indication which offsets statements which have been made to the effect that manufacturers were loading up their outlets. While the decline is only .75 per cent as compared with 36.50 per cent decrease in sales, the figure indicate excellent control of distributor and dealer stocks.

Turn-over tendencies during recent months have so far surpassed those of corresponding months last year as to represent a great gain to the industry. Turn-over of 48.89 per cent in July, 1933, may be compared with turn-over of 10.20 per cent in July, 1932.

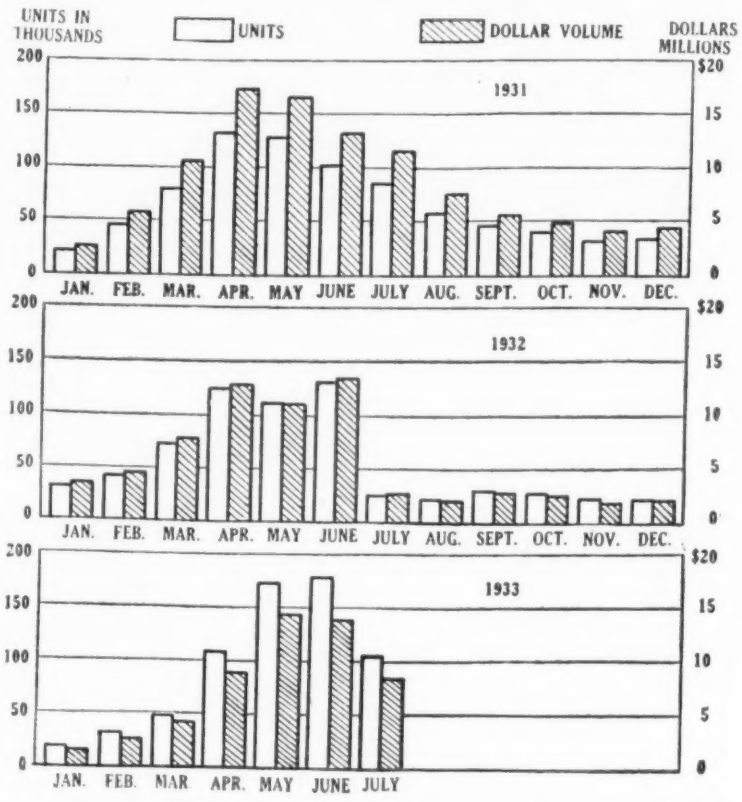
Monthly Household Factory Production

Inasmuch as factory stocks of household refrigeration increased in July by $1,908,443, the indication of factory production is higher than monthly sales to distributors and dealers by that amount.

In July, 1933, indication of factory production is $10,755,007 as compared with $3,316,101 in July, 1932—an increase of 224.32 per cent.

Summarizing factory activity for the first seven months of the year, the total is $52,311,727 as compared with $52,411,254 in the corresponding period of 1932—a reduction of .19 per cent.

Chart I—Household Sales



It is interesting to note that distributor and dealer stocks in July, 1933, are below those of July, 1932, by 16.48 per cent, despite the much larger sales volume indicated this year.

Factory stocks increased by 21.90 per cent but are 37.25 per cent below those of the corresponding month last year. No doubt the rise in factory stocks will be corrected during the remaining months of the year.

Household Stock Turn-over

With seasonally declining sales and some increase in factory stocks of household refrigeration, the turn-over ratio is naturally much reduced as compared with the turn-over in May and June. The turn-over figure of 48.89 per cent compares with 85.77 per cent in June, 93.25 per cent in May, and 54.3 per cent in April.

Monthly Household Retail Sales

The decline in distributor and dealer stocks of household refrigeration in July amounted to $56,721, which causes the indication of monthly retail sales to be above factory sales by a corresponding amount. July, 1933, sales rpresent 16.91 per cent of total sales for the calendar year. In July, 1932,

(Concluded on Page 7, Column 1)

Chart II—Commercial Sales

LET ME GET THIS STRAIGHT! YOU SAY LEONARD BUSINESS IN AUGUST WAS MORE THAN THREE TIMES LAST AUGUST?
THAT'S WHAT IT WAS! WHY DON'T YOU PLAY BALL WITH THAT CROWD? THEY'RE GOING PLACES!
NRA
WE DO OUR PART
(588)

LEONARD continues a year of record-breaking sales with the most sensational gain of all for August—a month in which the electric refrigeration business, ordinarily, is marking time between seasons. Shipments for August, 1933, were 331% of those for August, 1932—partly the result of rapidly growing public demand for Leonard quality and value, partly the result of a hard-hitting advertising program, and largely the result of dealer aggressiveness and cooperation that turned this off-season into a profit-season.

LEONARD REFRIGERATOR COMPANY
14256 Plymouth Road, Detroit

These record-breaking sales mean extra *profit*

for **LEONARD DEALERS**

ANALYSIS OF NEMA STATISTICS FOR JULY

(*Concluded from Page 6, Column 5*)
sales were 7.43 per cent of sales for the first seven months.

The cumulative figures for retail sales for the first seven months of 1933 are $52,638,444 as compared with $54,790,958 for the corresponding period of 1932—a decline of 3.92 per cent.

Chart II—Monthly Commercial Sales To Distributors and Dealers

July unit sales of commercial refrigeration represent a decline of 15.04 per cent below June, 1933, sales.

Average commercial unit price shows a decline of 11.74 per cent as compared with June, and dollar sales for July are 25 per cent below those of June.

Comparing July, 1933, with the corresponding month last year, unit shipments show an increase of 60.08 per cent, and dollar sales an increase of 24.33 per cent.

Distributor and Dealer, Factory, Branch and Warehouse, and Total Commercial Stocks

Distributor and dealer commercial stocks show a slight decline as compared with June. Factory stocks show a very slight increase.

Commercial stocks as of July, 1933, are well below those of the corresponding month last year.

Commercial Stock Turn-over

The July indication of commercial stock turn-over naturally falls considerably below the indication of June of this year. Sales have declined and stocks have remained practically stationary. However, the July turn-over of 25.56 per cent compares most favorably with turn-over of 14.01 per cent in the same month last year.

Monthly Commercial Retail Sales

Indication of monthly commercial retail sales for July is $1,361,916, which represents a decline of 21.53 per cent below June but an increase of 13.02 per cent as compared with July, 1932.

Monthly Commercial Factory Production

Because of the slight change in the stock situation, indication of factory production is consistent with sales indication.

The decline as compared with June is 26.03 per cent, and there is an increase of 64.60 per cent as compared with July, 1932.

3 WESTINGHOUSES USED IN SEWAGE LABORATORY

NORWALK, Ohio—Three Westinghouse domestic refrigerators have been purchased by the sewage treatment plant here for use in its laboratories.

Two of the refrigerators are being used as "incubators," and are maintained at temperatures between 19° and 21° C. In them are kept five-day B.O.D. (bio-chemical oxygen demand) samples, and also sewage samples being tested for relative stability.

Another Westinghouse is used to retard or stop bacteria growth until sewage samples are ready to test. The samples are taken every two hours from four places in the plant, according to Waldo Schock, the plant's chief operator.

Joe Fisher, Norwalk Westinghouse dealer, sold the refrigerators to the sewage treatment plant.

Bureau Issues Booklet On Show Management

NEW YORK CITY—Advice on effective promotion and management of cooperative electric refrigeration shows has been assembled in booklet form by the Electric Refrigeration Bureau here for circulation among local bureaus everywhere.

It is intended that the booklet serve bureaus as a guide in staging refrigeration shows between Sept. 30 and Oct. 7—this year's Refrigeration Week.

Topics discussed in the manual include management, organization, raising funds, locations, admission, floor arrangement, booth allotment, decorations, prizes, advertising, and attendance-building features. Last few pages offer an idea of results obtained by some refrigeration shows recently.

FIVE ALABAMA SALESMEN TO VISIT FAIR

BIRMINGHAM, Ala.—Five employes of the Alabama Power Co. are preparing to visit the Century of Progress Exposition as guests of Kelvinator Corp., having won their trips in a recent sales campaign.

The men who will make the trip are: F. S. Keeler, district manager, Mobile; G. H. Price, Jr., local manager, Winfield; W. D. Hall, salesman, Decatur; L. E. Wheyland, Mobile; C. W. Kenyon, district sales supervisor, eastern district.

★ NORGE makes its GREATEST summer record ★

★ A solid trainload of Vikings and Norsemen leaving for Chicago for a visit to the World's Fair as an award for selling Norges.

Success! The big Norge Summer and Fall program sweeps on to victory. August sales proved that Norge confidence in the New Deal, and in its distributing organization, was not misplaced.

Dealers and salesmen grasped the wealth of cooperation handed them and put over the Norge program with a vengeance. Thousands and thousands of gleaming white Norge Rollator Refrigerators were speeded across country to replenish emptying warehouses and stores — 17 solid trainloads in one month . . and when the records were all in, all sales records for similar periods had been shattered.

785 Norge salesmen, members of Viking and Norsemen Clubs (only 8% of the total sales force) lived up to their reputations and sold at retail during August 7,920 Norge refrigerators. When complete returns for the entire sales organization are received, an amazing record-breaking total for the month of August will have been rolled up.

With wide-spread consumer acceptance for the Norge firmly established and steadily growing . . . with its proven Rollator cooling mechanism, an unbeatable feature . . . with its classic, modern beauty setting a new standard . . . with its quiet, reliable service delighting hundreds of thousands of homes everywhere . . . with all this, together with a sound merchandising plan and the Nation's buying power rapidly increasing, *watch for another Norge record.*

But don't wait for it. Get in and be a part of it. Get your share of the generous profits that are going to thousands of Norge dealers everywhere.

Ask by 'phone, wire or letter about the Norge non-seasonal dealer plan.

NORGE CORPORATION
DIVISION OF BORG-WARNER CORPORATION
658 East Woodbridge Street, Detroit, Michigan

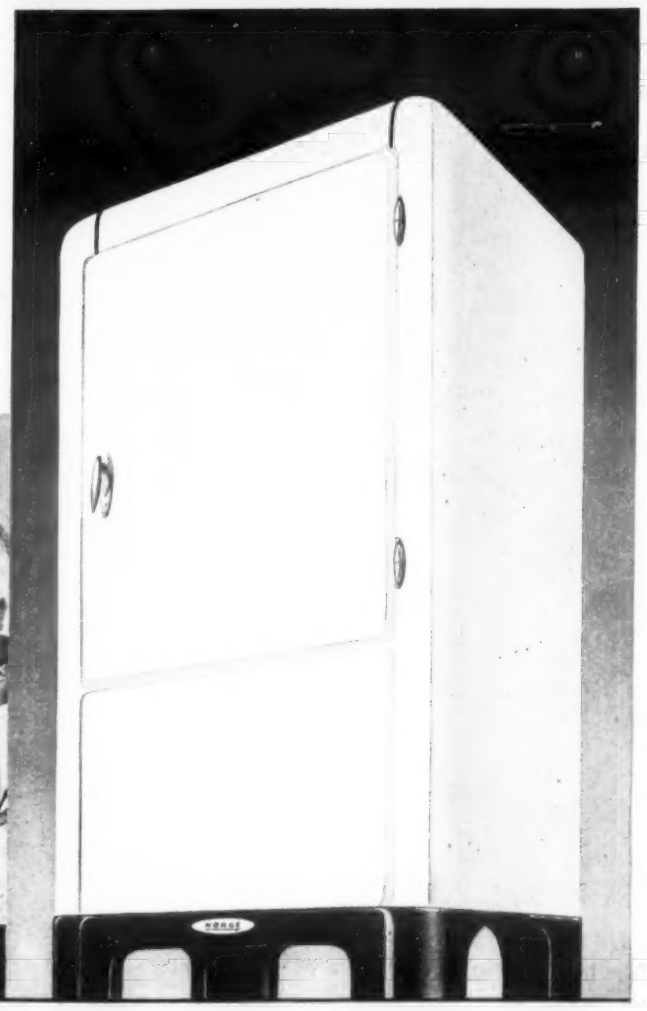
★ At the Norge exhibit in the Electrical Building at the World's Fair, watching the mammoth Rollator.

NRA MEMBER U.S. WE DO OUR PART

472% INCREASE

NORGE AUGUST SALES WERE 472% AS COMPARED WITH AUGUST, 1932

★ One of the 17 Norge trainloads shipped in one month. Norge July and August sales exceed by over five times Norge sales during the last half of 1932.



NORGE
Rollator refrigeration

The Only Genuine
ROLLATOR
The simplest refrigerator mechanism known—only three working parts—blade, shaft, roller. A proven product that has won a wide buyer preference.

Text of Commercial Refrigerator Code Which Awaits NRA Approval

The following is the text of the code of fair competition of the commercial refrigerator industry as originally drawn by the Commercial Refrigerator Manufacturers Association for submission to the National Recovery Administration.

Article 3, which dealt with maximum hours of work, is missing because it has been altered and approved by the administration. Provisions as to the work hours will be found in the story concerning the code on page 1 of this issue.

The remaining parts of the code have not yet been approved by NRA officials.

To effectuate the policy of Title I of the National Industrial Recovery Act, during the period of emergency, by reducing and relieving unemployment, improving standards of labor, increasing the consumption of industrial and agricultural products by increasing purchasing power, eliminating unfair competitive practices inimical to the interests of the public, employes and employers, relieving the distress from over-productive capacity, and otherwise rehabilitating the commercial refrigerator industry, the following provisions for a code of fair competition for the commercial refrigerator industry are hereby established:

I. DEFINITIONS

(a) A "Commercial Refrigerator" is defined to mean an insulated room, box, chest, cabinet, display case, or counter for the storage and/or display of perishable food or other products under refrigeration, in meat markets, grocery and delicatessen stores, florist shops, hotels, restaurants, clubs, institutions, etc., regardless of whether the cooling agent be ice or mechanical refrigeration.

(b) The "Industry" is defined to mean all manufacturers and/or merchandisers of such equipment.

(c) The "effective date" shall be a date two weeks to the day after this code shall have been approved by the President.

(d) "Member" shall be defined as any person, partnership, or company engaged in the manufacture and/or sale of commercial refrigerators.

II. MINIMUM WAGE

(a) On and after the effective date employers shall not employ any person under the age of 16 years.

(b) On and after the effective date the minimum wage that shall be paid by any employer to any person engaged in the processing of the products of the commercial refrigerator manufacturing industry and in labor operations directly incident thereto shall be 35 cents per hour, provided, however, that casual and incidental labor and learners may be paid not less than 80 per cent of such minimum wage, but the total amount paid to such casual and incidental labor and learners shall not exceed in any calendar month 5 per cent of the total wages paid to all process labor by such employer.

(c) On and after the effective date, the minimum wage that shall be paid by any employer to all other employes shall be at the rate of $14 per week when employed in factories located in the Northern states and at a rate of not less than 90 per cent of the Northern rate when employed in factories in Southern states, provided, however, that office boys, or girls, learners, and casual employes may be paid not less than 80 per cent of such minimum wage but the total amount paid to such office boys or girls, learners, and casual employes shall not exceed in any calendar month 5 per cent of the total amount paid by such employer to all employes covered by the provisions of this paragraph.

IV. METHOD FOR OBSERVANCE

With a view to keeping the President informed as to the observance or non-observance of this Code of Fair Competition, and as to whether or not the commercial refrigerator industry is taking appropriate steps to achieve the objects of the National Industrial Recovery Act, each manufacturer engaged in this industry will furnish duly certified reports in substance and in such form as may be hereafter provided.

(a) Wages and hours of labor.

Monthly reports showing actual hours worked by the various groups of employes, the number of such employes, and the minimum weekly rates of wages.

(b) Production, stocks, and orders.

Monthly reports showing production in units in each class, stocks on hand, both sold and unsold, and unfilled orders under the same classifications.

(c) Sales.

Reports of individual sales as made on forms to be provided to cover details of construction, terms, and price.

The Commercial Refrigerator Manufacturers Association, 111 West Washington St., Chicago, Ill., is hereby constituted the agency to collect and receive such reports.

(d) For the purpose of initiating, securing the approval of and administering and enforcing this code, each member subject to the provisions thereof, whether or not a member of the Commercial Refrigerator Manufacturers Association, shall pay as a code fee to the treasurer of the association, his proportionate share of expense.

This share of expense shall be prorated and collected from each member in accordance with the by-laws of the Commercial Refrigerator Manufacturers Association.

V. TRADE PRACTICES

(a) Price discrimination.

Any discrimination in price between purchasers of the same class in the sale of the same article, or discrimination in price on the same article in the same or different communities (except for due allowance for the difference in cost of transportation and installation) is an unfair trade practice, provided, however, that nothing in this provision shall be construed to prevent the use, when published as hereafter provided, of a special quantity discount to chain store or others purchasing large amounts of equipment.

The members of this industry, both manufacturers and dealers while maintaining absolute freedom in the issuance of price schedule from time to time, in conformity with trade practices, do adopt as a cardinal principle that there shall be no discrimination as between purchasers of their product, and that all published prices as issued by any member shall set forth plainly the price and terms and conditions, and that such published prices shall truly represent the sales price in all cases where the goods sold and conditions and terms are set forth in the member's price schedule, and any deviation from the principle expressed herein shall be deemed an unfair trade practice, provided, however, that nothing in this rule shall be construed as an obligation on anyone to maintain any price any length of time.

(The foregoing rule specifically requires (a) the granting of a uniform discount for an all-cash purchase to all purchasers (b) the elimination of inflated prices where there is equipment to be traded in as a part of the purchase price and (c) the confining of allowances for equipment traded in to the fair value of such equipment to the acceptor.)

Sales of equipment by a member for less than its actual cost shall be an unfair trade practice. Actual cost shall be determined by a recommended cost protection formula to be submitted to and approved by the Administrator.

Cost of freight, installation, etc., shall be considered for the purposes of this code as being a part of cost. This means that in determining whether a sale is made under cost the freight and installation if paid by a manufacturer and/or merchandiser must be included in total cost.

Commercial Bribery

(b) Commercial bribery.

The payment of commissions, gratuities, salaries, etc., for services rendered or purported to be rendered by anyone not regularly employed by a company, partnership, or individual engaged in the manufacture and/or sale of commercial refrigerators, is an unfair trade practice.

(This section shall apply whether such compensation regardless of its form, whether paid directly or indirectly, shall be used or attempted to be used to influence, or attempt to influence, any purchaser or prospective purchaser. It is especially designed to prohibit the giving of compensation to employes of purchasers, salesmen, sales agencies, or manufacturers of mechanical refrigeration, not regularly employed by said commercial refrigerator manufacturer, or by its agents or distributors. It shall equally apply to compensation to salesmen of other products.)

Misrepresentation

(c) Misrepresentation.

Every contract for the sale of new equipment shall include complete specifications as to exactly the equipment to be furnished. Where standard equipment is included, reference may be made to equipment being standard Model No. ...., the detailed specifications of which are shown in printed literature, and are on file with the association. Any deviation from exact standard must be set forth in detail on standard specification form required for use on all equipment not standard and the specifications of which are not on file with the association. Failure to comply with this rule is an unfair trade practice.

The deliberate misrepresentation of equipment by any member is an unfair trade practice. Deliberate misrepresentation shall be the acceptance of an order, and the delivery to the customer as fulfillment of the contract, of equipment inferior or superior in design, workmanship, or materials to that specified in the contract.

All contracts must clearly state that verbal representations or promises in addition to or differing from the provisions therein are null and void and will not and cannot be recognized by the company.

The purchasing of equipment for resale to a customer without the addition to cost of overhead and reasonable profit shall be considered as commercial bribery.

(d) Rebates.

No money, goods, or services shall be given or rendered customer or any agent of his, either directly or indirectly, except in accordance with the original signed order of that customer. To do so is an unfair trade practice.

Terms of Sale

(e) Terms of sale.

The terms of sale must be clearly set forth in the contract. The amount of down payment, on arrival payment, monthly payments, etc., shall mean only cash payments to be made by customer. Failure to so specify is an unfair trade practice.

The loaning by salesmen or others connected with the refrigerator company of money to customer for purpose of making payments on contract or otherwise, is an unfair trade practice.

The acceptance of products, goods, or chattels, in lieu of cash for payments called for in contract is an unfair trade practice.

When a trade-in is accepted its allowance value must be clearly stated, and a definite description given of article or articles given as part payment. Failure to so specify is an unfair trade practice.

Trade-ins shall not be considered in lieu of cash down or arrival payments.

The use of "balloon notes" is condemned as an unfair trade practice. By this is meant the making of any note in a series substantially larger than other notes in the series. The first monthly instalment payment to be due 45 days from date of shipment and not more than 45 days from date of shipment.

No instalment sales shall be made on a less favorable down payment than 20 per cent, the balance to be paid out in not to exceed 24 months and provided that no monthly instalment payment shall be less than $20. These amounts shall apply on sales of stock and special goods, both new and used, all down payments to be based on the net delivered price, after deduction of credit for any trade-in allowances made.

False Invoicing

(f) False invoicing.

All invoices shall state specifically the exact equipment or services actually delivered. Failure to do so is an unfair trade practice.

(g) Piracy of design.

The deliberate attempt to duplicate the design or construction of a competitor is an unfair trade practice.

Violation or evasion by members of other member's patents, copyrights, trade marks, or other distinguishing factors is an unfair trade practice.

(h) Free goods.

It is an unfair trade practice (a) to supply equipment without "fair" competition for any purpose whatsoever, (b) to install equipment in a customer's store without a bona fide contract for its sale and purchase and the payment of a cash down payment, and (c) to make "trial installations."

Interference

(i) Interference with contracts.

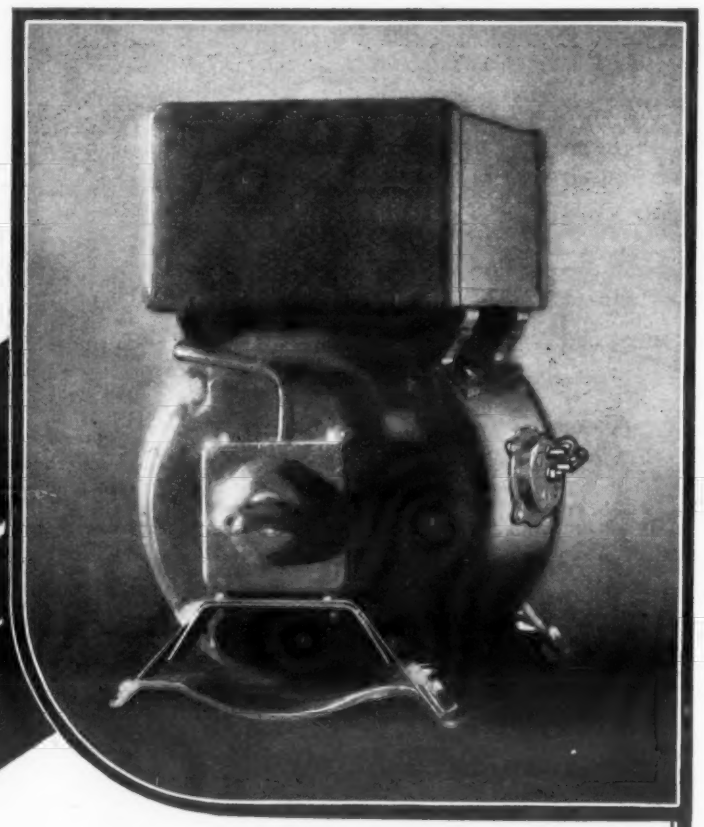
Willfully inducing or attempting to induce the breach of an existing contract by any means or device whatsoever, during the term of such contract, or interfering or attempting to interfere with the performance of any contractual duty or service connected therewith, such breach or interference being for the purpose or with the effect of dissipating, destroying, or appropriating in whole or in part the patronage, property, or business of another engaged in the industry, is hereby declared an unfair trade practice.

False Statements

(j) False statements.

Manifestly false statements by a manufacturer, agent, dealer, or seller concerning design, material, condition, price, or performance of any competi-

(Concluded on Page 9, Column 1)



Complaint-proof

Stalled on the line under full voltage for THREE MONTHS the Thermoguard motor shown above was unharmed. This thermostat protected it. An ordinary motor would have been quickly destroyed.

YOU'RE insured against the service expense, complaints, and customer dissatisfaction caused by motor failure, if the refrigerators you sell are powered by Westinghouse THERMOGUARD motors!

These motors can't burn out! Thermostat motor protection, provided by the famous Built-in-Watchman, takes care of that. No matter what severe starting or running conditions Thermoguard motors are subjected to, they will never fail or be destroyed. The thermostat automatically stops the motor before its temperature reaches the danger point and starts it when conditions are safe, without manual resetting.

Self-protection is only one of the important features of Westinghouse Thermoguard motors, designed especially for refrigerators. A scientifically designed resilient mounting that won't deteriorate with age gives them that all-important feature—SILENCE. Simplicity of design, and a new special oiling system help to make them trouble-free. They consume a minimum of power.

It will pay in saved service dollars to insist on burn-out-proof Thermoguard motors on your refrigerators.

Westinghouse

Quality workmanship guarantees every Westinghouse product

SEND FOR INFORMATION

Westinghouse Electric & Manufacturing Company
Room 2-N—East Pittsburgh, Pa.

Gentlemen: Please send information on Thermoguard self-protecting motors.

Name .....
Position .....
Company .....T 79464
Address ..... ERN 9-13-33

ANSUL
SULPHUR
DIOXIDE

The scientific system of dehydrating Ansul Sulphur Dioxide assures a product of minimum moisture content. Then, each cylinder is given a laboratory analysis before it leaves the plant. That is why Ansul Sulphur Dioxide gives absolute protection for refrigeration.

ANSUL
CHEMICAL COMPANY
MARINETTE - - WISCONSIN

TRADE RULES SET UP IN COMMERCIAL REFRIGERATOR CODE

(*Concluded from Page 8, Column 5*)

tor's equipment or part thereof, or the circulation of false statements or false reports of a disparaging nature concerning the personnel or the financial standing of competitors is an unfair trade practice.

To further effectuate the policies of this act, the Commercial Refrigerator Industry Committee, the applicant herein, or such successor committee or committees as may hereafter be constituted by the action of the Commercial Refrigerator Manufacturers Association and any other representative group or groups of manufacturers in the industry, is set up to cooperate with the administrator as a planning and fair practice agency for the commercial refrigerator industry.

Such recommendations, when approved by the administrator, shall have the same force and effect as any other provisions of this code. Such agency is also set up to cooperate with the administrator in making investigations as to the functioning and observance of any of the provisions of this code, at its own instance or on complaint of any person affected, and to report the same to the administrator.

Collective Bargaining

VI. EMPLOYMENT PROVISIONS

Employers in the Commercial Refrigerator Industry shall comply with the requirements of the National Industrial Recovery Act as follows:

"(1) That employes shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint, or coercion of employers of labor, or their agents, in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection;

"(2) That no employe and no one seeking employment shall be required as a condition of employment to join any company union or to refrain from joining, organizing, or assisting a labor organization of his own choosing; and

Hours and Wages Clause

"(3) That employers shall comply with the maximum hours of labor, minimum rates of pay, and other conditions of employment, approved or prescribed by the President.

"(4) It is clearly understood that the two foregoing paragraphs do not impair in any particular the constitutional rights of the employe and employer to bargain individually or collectively as may be mutually satisfactory to them; nor does it impair the joint right of employer and employe to operate an open shop.

"(5) Nothing in this code is to prevent the selection, retention, elimination, and advancement of employes on the basis of their individual merit, without regard to their affiliation or non-affiliation with any labor organization."

VII. CANCELLATION AND MODIFICATIONS

The President may, from time to time, cancel or modify any order, approval, license, rule, or regulation issued under Title I of the National Industrial Recovery Act.

Additions to Code

VIII. ADDITIONS

Such of the provisions of this code as are not required to be included therein by the National Industrial Recovery Act may, with the approval of the President, be modified or eliminated as changes in circumstances or experience may indicate. It is contemplated that from time to time supplementary provisions to this code or additional codes will be submitted for the approval of the President to prevent unfair competition in price and other unfair and destructive competitive practices and to effectuate the other purposes and policies of Title I of the National Industrial Recovery Act consistent with the provisions hereof.

41,000 MAJESTIC RADIOS SHIPPED DURING AUGUST

CHICAGO—More than 41,000 Majestic radio sets were shipped from the Grigsby-Grunow factory during the month of August, according to a statement made Sept. 1 by Le Roi J. Williams, vice president and general manager of the company.

This represents the largest August shipment since 1929, and the largest single month's shipment since 1931, said Mr. Williams. The factory's September schedule is 60 per cent greater than that for August.

"Our tube plant is now operating on day and night shifts, and our set plant goes on a similar basis Sept. 6," he stated. "These operations will give employment to 4,000 persons."

"—when danger threatens, the gazelle seeks refuge with the herd but man flies to the home of a trusted friend."

Important things are happening to business these days. No man knows what will come next. Never before has a representative form of government dipped so deeply into private business. Never before have such serious and widespread measures been taken to correct bad business practices. And all for the purpose of making business better.

One of the things government is now trying to do is to coax, cajole or coerce business into being honest. The chaotic conditions which have made necessary the intervention of the strong arm of control have been brought about by business itself. Actual dishonest manufacture has been indulged in quite as much as unfair competitive selling methods.

Much is required by the NRA. Much more is implied in its purpose. Under the various interpretations and loopholes there will be foolish gazelles who will run to the herd and hide in subterfuge, deception and substitution. But those who are honest and clear-thinking will turn to trusted friends—to those manufacturers who make honest materials that give honest service.

Through almost the whole life of the refrigeration industry Dry-Zero has resolutely refused to jeopardize its position of trust. No refrigerator user will ever have cause for complaint about the insulation of a refrigerator if that insulation is Dry-Zero properly installed.

Dry-Zero Corporation, Merchandise Mart, Chicago. Canadian office: 687 Broadview, Toronto, Ontario.

NRA MEMBER U.S.
WE DO OUR PART

THE MOST EFFICIENT COMMERCIAL INSULANT KNOWN **DRY·ZERO**

ELECTRIC REFRIGERATION NEWS

The Newspaper of the Industry — Written to be Read on Arrival

Published Every Week by
BUSINESS NEWS PUBLISHING CO.
Also publishers of REFRIGERATED FOOD NEWS (monthly) and REFRIGERATION DIRECTORY and MARKET DATA BOOK (annual)
550 Maccabees Building, Woodward Ave. and Putnam St.
Detroit, Michigan. Telephones: Columbia 4242-4243-4244-4245

Subscription Rates:
U. S. and Possessions and countries in Pan-American Postal Union: $3.00 per year; 2 years for $5.00
Canada: $6.00 per year (U. S. Money)
All Other Countries: $5.00 per year
Advertising Rates on Request

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Copyright, 1933, by Business News Publishing Co.
VOL. 10, NO. 2, SERIAL NO. 234, SEPT. 13, 1933

The Fetish of Figures

TWO years ago at the internationally noted Boston Conference on Retail Distribution not a statistician on the program could get a decent hearing. Said the department store heads, chain store executives, and sales managers present:

"Figures got us into the depression! We paid too much attention to charts and graphs and balance sheets! We sat in our offices and ran our businesses with calculating machines, instead of contacting our customers and talking to our prospects. No more statisticians for us!"

All Detroit has been stirred recently by revelations made before the one-man grand jury investigating the banking situation in that beleaguered city. Disclosures have been little short of sensational. Not the least interesting has been the information that national bank examiners make two reports on the books of the banks examined: a "white report" to the directors of the bank, and a secret "yellow" report (which may or may not coincide with the "white" one) to comptroller of the currency. According to the testimony of Donald N. Sweeny, former president of the First National Bank, Detroit, before the grand jury:

"I have been in the banking business 22 years. I never knew there were more than these four annual exchanges (between national banks and the comptroller of the currency) until March 13 of this year, when I was in Comptroller Awalt's office. I was then advised that there was still another report, called the yellow report, a confidential communication to the comptroller, which either accompanies or follows the white report."

In the case of the Detroit bank, the "white" report for the guidance of the bank's directors showed the bank solvent; while the "yellow" report for the comptroller declared it insolvent.

The difference between the two reports can be boiled down to one figure—high enough in one case to make the bank solvent, low enough in the other to cause the comptroller to close its doors and appoint conservators and receivers.

Hence we have the calamitous spectacle of *one man* putting down a figure on a piece of paper; thinking better of it, and changing that figure on another piece of paper, with the following disastrous results:

Two great banks in the nation's fourth largest city are forced to close their doors, working hardship and ruin on more than a million depositors.

All the banks in Michigan close temporarily, many of them permanently.

All the banks in the United States close for a time.

A figure on a piece of paper, representing one man's judgment, almost ruins a nation!

That, of course, is an extreme example. But consider another phenomenon:

A new president, utilizing college-professor theories hitherto considered unwhisperable, is *smiling* a nation back into prosperity. The chart-followers are looking over their figures, shaking their heads, and saying that you can't lift a nation by its boot-straps. *But it's working!*

From the very beginning of the depression it has been said that confidence was the cure. Our technical equipment, natural resources, man power, brains, and resourcefulness were just as good in December, 1929, as they were in August, 1929. Yet in August we were rich and in December poor. Why? *Confidence had been destroyed by figures.*

Long, long ago, when printing presses were scarce and were operated only by scholars of great learning and erudition, belief in the truth of the printed word became almost a religion—just as in China the words "it is written" invariably prefaced the quoting of profound epigrams and bits of venerable wisdom. Today belief in the accuracy of the printed word persists even though a scoundrel and an ignoramus can acquire a press and become a publisher.

Not until the last few decades, however, has the worship of statistics become prevalent. In America it was once almost the state religion. It has taken a cataclysmic depression to teach us the futility and the unreliability of figures—of budgets and balance sheets, of charts and statistics—as a means of control.

If the lessons of 1929-1933 have been taken to heart, it may well be believed that the day of the Insull-Lowenstein-Kreuger type of executive, sitting high, alone, and aloof in an office behind the protection of a battery of secretaries, and running a shaky pyramid of enterprises with little but figures to guide him, is over.

Today the organizations which seem best fitted to take advantage of the New Day being ushered in by the New Deal are those whose executives are in actual touch with their customers and with the men who work for them, who can base their decisions on genuine knowledge of conditions and situations, rather than on statistics.

The Divine Right of Figures may soon be as passe as the Divine Right of Kings.

WHAT OTHERS SAY

TOO MUCH BALLYHOO

SEVERAL large advertisers who believe in calling things by their proper names express concern to *Printer's Ink* over what they conceive to be the failure of the NRA experiment to live up to its press agent notices. Their attitude, one of wholehearted support in the beginning, is now frankly skeptical. They are wondering if the thing is going to fail after all.

This feeling, which is all too prevalent, has come about, we believe, not through any inherent lack of merit on the part of the great economic experiment. The mischief has been worked because of too much ballyhoo, an excess of emotionalism and flag waving, and rather clumsy government administration.

The plan in itself is admittedly sound, even though it contains spiritual and social values which are not supposed to mix very well with economic values. It is radical, but its radicalism need cause no worry. Orthodox economic procedure will prevail in the end anyway and the chances are more than even that it will be pushed along a bit by NRA.

The bright feature for all advertisers to remember right now is that business is recovering under its own power. Its building up will be hastened, we believe, by the artificial means now being used. A drowning man needs help from artificial respiration and then he takes care of himself. This sort of help cannot go on forever.

It seems reasonably plain, therefore, that business men should be encouraged and even elated over the prospect rather than downcast. They should realize that NRA was oversold to them in a rather hysterical manner in the beginning.

It is true that a certain amount of psychological excitement had to be created to help tide business over the critical period while it was finding itself again. But it was tragically unnecessary to forecast black despair in case the experiment failed or to visualize the land as flowing with milk and honey if it were successful.

It would help a great deal, then, if the Recovery Administration would get its feet firmly on the ground and eliminate the surplus emotionalism and loose talking. Four-minute speakers just do not fit. Neither do the rather sloppy allegedly patriotic appeals that are to be seen on moving-picture screens. NRA parades, which several cities are putting on, are worse.

This part of the program falls pretty flat. It isn't because people are getting overly blase, either. They know when they have had enough and they have had too much in this case.

They prefer that the NRA proponents talk sense for a change.

There has been and is an excess of ballyhoo over this thing. And much of it is not only wearisome, but actually unintelligent.—*Printers' Ink*, Sept. 7, 1933.

LETTERS

Withdraws Objections To Roto Sections

Harrisburg, Pa.
Aug. 11, 1933.

Editor:

I beg to apologize for the letter I sent to you dated July 24, 1933, criticising you on your supplement to your NEWS.

Had I read the previous issue more thoroughly, I would not have sent such a letter, and I might add, I have changed my mind very, very much, and I would not like to have my subscriptions cancelled. I intend to have your paper sent to me weeky, regardless of where I am.

Hoping you will accept my apologies, I remain,

JOHN PURDY.

Answer—We are pleased to have subscribers speak up and express themselves, even when opinions are based on snap judgment. The **first** impression of a News reader is particularly important, because the paper is "Written to be read on arrival."

Drafts Dealer Code

State Headquarters
Electrical League of Rhode Island
529 Grosvenor Building
Providence, R. I.
Sept. 5, 1933.

Editor:

The Electrical Refrigeration Bureau of R. I. has drafted a Code of Fair Practices for Refrigeration dealers throughout the state. This code contemplates the elimination of the principal trade evils at present existing in our retailing market.

Our plan of operation contemplates the enforcing of the articles of this code by the several distributing companies.

Before we make a serious effort to enforce this code we want to find out whether the Refrigeration Industry is going to enact a Code of Fair Practice similar to the one outlined above as we realize that our local code will not have the proper credentials necessary for its full effectiveness.

H. E. DAWSON,
Manager.

Answer—The code for **manufacturers** of **household** electric refrigerators has not yet been submitted to the NRA and the proposed regulations have not been made public. This code will be a supplement to the Nema code now effective for all **electrical** products.

See Sept. 6 issue of the News for proposed code submitted by National Electrical Wholesalers Association (including electric refrigerator **distributors**).

See this issue for proposed code covering **commercial** refrigerators.

Code Ideas Wanted

Woodhouse Electric Company
Norfolk, Va.
Sept. 7, 1933.

Editor:

We would like to have you send us, if the same is available, a code of fair practices for electric refrigerator distributors and dealers.

It is our thought that possibly you have received from various organizations of distributors and dealers throughout the country samples of the codes under which they are operating, and if such proves the case, we would like to have a copy, so that the local distributors and dealers may draft a similar code.

S. GOODMAN,
Secretary.

Hours of Labor

Liberty Refrigeration Corporation
Providence, R. I.
Sept. 6, 1933.

Editor:

Please advise where I may obtain a copy of the Code applicable to the manufacturers of electric refrigeration equipment.

I am particularly concerned with the hours per week of the labor, and wish you would advise me in your letter what the limitations are, and where I may obtain a copy of the Code.

J. H. READIO, JR.,
General Manager.

Answer—See Nema code published in Aug. 9 issue of the News.

Air Conditioning

East Boothbay, Me.
Sept. 6, 1933.

Editor:

I am interested in getting all the information available on air-conditioning for the home. The section devoted to this subject in your magazine is always interesting and welcome.

And since I am writing you, I might as well tell you what I think of your magazine. There is a degree of skill or expertness in its make-up that is seldom seen in a trade paper. It covers each subject thoroughly yet concisely and speaks on each subject—whether it is engineering, service, sales, or advertising—with understanding and insight. Keep up the good work, I am sure it is appreciated by everybody in the industry.

HOMER J. ZOPF.

OLYMPIC GAMES ARE HELD BY REX COLE

NEW YORK CITY — Nearly 400 crack salesmen and sales executives of the Rex Cole General Electric distributorship here gathered at the New York Athletic Club, Travers Island, Aug. 30, to compete in the Rex Cole Olympic Games, annual day of sports events offered as a reward to salesmen making a high percentage of quota during the year.

Early Wednesday morning, Rex Cole, Robert Stevenson, and other organization officials welcomed guests and athletes-for-the-day to the club, after which the day was officially opened by a parade headed by Lieutenant Sullivan's General Electric Association Island band.

L. Howard Jenks, Jr., manager of the commercial department, led his team to victory in the morning track and field events.

Apartment House Team Wins

Prefaced by a banquet, a recess, and overflowing steins, main attraction of the day—the inter-departmental baseball games—got under way in the early afternoon. The first game was won by the apartment house nine, which defeated the commercial department team by a score of 3-2. In the second game, the wholesale department earned the right to face the apartment house contingent by blanking the retail department in three innings, 6-0.

The two teams in the final game were so evenly matched that the first three innings were scoreless. J. J. Massimi of the apartment housers, however, broke through Wholesalesman Pitcher Burns' defense in the fourth inning, bringing in three runs on his single to center field. Final score—3-0 in favor of the apartment house nine.

Guests at Games

In addition to officials of Rex Cole, Inc., who were guests at the meeting, other guests included: T. B. Allen, A. L. Atkinson, C. Clifford Barnes, H. H. Bosworth, J. A. Brennan, W. C. Noll, W. M Timmerman, and J. M. Walker, all of General Electric Co.; W. Ray Baker and Fred J. Bollmeyer, Maxon, Inc.; L. H. Burgess, James McCreery & Co., New York City; T. X. Jabine and Harold Martin, Central Hudson Gas & Electric Co.; H. T. McCann, Commercial Credit Corp; and L. Hammerstein, Philips and Ibsen.

Prizes for the day's events were awarded as follows:

Departmental track and field championship: Manager's prize and assistant manager's prize, won by L. Howard Jenks, Jr., commercial department.

Divisional track and field championship: First, Charles S. Witherspoon, apartment house division; second, R. F. Kane, commercial division; third, H. O. H. Quinn, commercial department.

Individual track and field championship: First, E. R. Bryce, commercial; second, Frederick Kastner, apartment house; third, George Guyler, wholesale; fourth, George Beuschold, commercial; fifth, J. H. Connelley, retail.

50-yard dash: First, George Guyler, wholesale; second, Frederick Kastner, apartment house; third E. R. Bryce, commercial; fourth, R. Burr, wholesale.

Shoe Race: First, Uda B. Kronenberg, commercial; second, H. A. Dawson, wholesale; third, John J Massimi, apartment; fourth, J. D. Loscalzo, retail.

Potato race: First, George J. W. Husing, commercial; second, James Burns, wholesale; third, R. W. Keeser, wholesale; fourth, John J. Massimi, apartment.

3-legged race: First, J. Desmond Phelan, Edward R. Bryce, commercial; second, Edgar B. Birge, John F. Ammann, commercial; third, R. Burr, H. A. Dawson, wholesale; fourth, George A. Rakowski, Meyer Reiss, retail.

Baseball throw: first, Frederick Kastner, apartment; second, O. Gregory, wholesale; third, A. Mushinski, wholesale; fourth, Edward R. Bryce, commercial.

Running broad jump: First, Frederick Kastner, apartment; second, R. A. Bishop, wholesale; third, Edward R. Bryce, commercial; fourth John H. Connelley, retail.

Standing broad jump: First, Edward R. Bryce, commercial; second, George Beuschold, commercial; third, Mr. Guyer, wholesale; fourth, Richard W. Bertie, retail.

Twelve pound shot put: First, Charles S. Witherspoon, apartment; second, George Beuschold, commercial; third, Fred Bischoff, retail; fourth, Max Eisenstadt, commercial.

Interdepartmental championship relay. Won by Wholesale Department. (R. Burr, Maurice E. Pipkin, Jr., Paul Hayden, Mr. Guyler).

Baseball championship. Manager's prize, John J. Massimi, apartment; Assistant Manager's prize, Grosvenor Robinson, apartment. $70.00 to be divided equally among the following: Apartment House Department, Charles S. Witherspoon, Frederick Kastner, Andrew Fisher, John J. Massimi, John Lindquist, Abe Reinstein, Henry H. Raphiel, Harry Rosenberg, and Frank Tautphoeus.

VIRGINIA SMELTING SIGNS CHEMICAL CODE

WEST NORFOLK, Va.—(Special to ELECTRIC REFRIGERATION NEWS)—Virginia Smelting Co. has signed the code of the Chemical Alliance, Inc., which has been submitted by the chemical industry to the National Recovery Administration.

G-E Directs Electrical Research Into Wide Variety of Applications

By L. A. Hawkins, Executive Engineer, General Electric Co.

Editor's Note: What is the House of Magic? In what mysterious pursuits are its scientists engaged? At the recent convention of G-E distributors in Cleveland, Larry Hawkins of the General Electric Research Laboratories (the House of Magic) attempted to answer these questions. His report was so interesting that the editor of ELECTRIC REFRIGERATION NEWS asked him to prepare a written summary for publication. He graciously complied, and here it is:

Sodium Lamps

In vapor lighting we see increasing promise. Incandescent lamps seem capable of little radical improvement in efficiency, but efficiencies much higher than those of incandescent lamps are attainable in vapor lamps.

The development of the sodium lamp would have gone forward much more rapidly had it not been for the color of the light, which rendered it entirely unsuitable for indoor use.

In addition to this, there was a technical difficulty—hot sodium vapor attacked glass and discolored it badly. Five years ago we discovered a satisfactory glaze which could be applied to the inside of a bulb to protect it from sodium attack.

We have been working on the development of relatively large sodium lamp units suitable for out-of-door illumination. Foreign lamp companies, notably Osram, Philips, and General Electric Limited, have also been carrying on development work in this field, and Osram and Philips have started commercial exploitation.

We now have a highway lighting installation on the Balltown road. The lamps are quite similar to those of Philips, and, like them, are operated on a series d.c. circuit, with a separate a.c. circuit for the cathode heaters.

The light output is about 4,500 lumens at about 90 watts. The efficiency is thus nearly three times that of incandescent lamps. The lighting effect is very pleasing. The highway seems flooded with light, but there is no glare.

Driving at speed without headlights, either on your own or approaching automobiles, is as safe and comfortable as by day. The full benefit of such lighting will be realized only when headlights are not used.

The G-E Vapor Lamp Co. is prepared to manufacture these lamps, and has supplied those used in the highway installation.

We regard the present installation as only a beginning. We expect to do away with the extra circuit now used for cathode heating.

Furthermore, we have been studying intensively the phenomena of light production in a sodium vapor discharge, and from the knowledge thus gained we hope it will be possible ultimately to increase the efficiency much beyond the values hitherto obtained.

Thyratrons

The direct current for the Balltown Road lighting installation is supplied by a special constant thyratron rectifier which has no moving parts and which can be conveniently mounted on a pole.

Another application which we have made, of thyratrons to vapor lighting, is an automatic dimmer which is in use at the Century of Progress Exposition.

We are developing a high voltage thyratron for use with d. c. cables linking generating or sub-stations. The tube rating is to be 25 amperes at 15,000 volts. The same design of tube will be used as a controlled rectifier at the transmitting end and as inverter at the receiving end.

Metal Glass Seals

With increasing tube size, metal to glass seals become increasingly important. We have measured with great accuracy the expansion coefficients of all glasses and metals used in tube manufacture, and can now specify precisely which glasses and metals should be used together, and the proper time and temperature of annealing.

Thyratron Exhaust

We have succeeded in reducing the time of exhaust to one-tenth of the former time, and have simultaneously greatly decreased the shrinkage loss.

This new process has been adopted for all thyratron manufacture. It has also been successfully applied to sodium lamps and to high vacuum tubes, and promises to reduce the cost of all of these devices and, by so doing, to extend their field of usefulness.

Photo-Electric Tubes

In the past, two types of phototubes were available, one with high vacuum and the other with gas. The first was lacking in sensitivity, the latter in constancy.

We have now so improved the vacuum type that it is as sensitive as the gas tubes of two years ago while maintaining its constancy of performance.

Sheet Steel Developments

Changes in sheet mill practice and alloy compositions have resulted in unusual steps forward in transformer sheet quality, making it possible to institute new classifications.

Fundamental Magnetic Research

In the investigation of the rate of propagation of magnetism, we have found that the retardation is greater than can be accounted for by eddy currents alone.

There is thus evidence of another retarding factor, which may be termed "magnetic viscosity." No theoretical basis for the calculation of propagation velocities has yet been found.

The propagating boundary has been found to be not sharply defined but rather diffuse, so that the transition region is of considerable width.

We are continuing these studies, seeking the elementary unit of magnetism.

Creep Strength in Steel

It has been discovered that the crystal structure of steel has a big effect on its creep strength, and we are developing the proper heat treatment to produce the desired crystal structure with uniformity.

Contact Material

An extensive metallurgical investigation of contact materials is in progress.

More than 150 metallic mixtures and metallic non-metallic mixtures have been studied, and combinations have been found which disclose the possibility of developing new contacts superior to tnose now used.

Rock Drill Bits

We have developed a drill bit consisting of diamonds set in a matrix of Stellite and so oriented that each diamond chip acts as an effective cutting tooth.

Field tests have been very satisfactory, and, now that drilling operations are being resumed, we hope for considerable business.

Artificial Fever Machine

It has been demonstrated that therapeutic results previously obtained by the use of malaria germs can be produced by fever induced by high frequency, and without the hazard involved in the use of disease germs.

Striking results in the treatment of certain diseases have been obtained by several doctors using our high frequency outfits.

The cost of these outfits has been high, but we have developed a much cheaper, but equally effective outfit, which we hope that the G. E. X-ray Corp. will soon have ready for the market.

Removing Plaster Casts

We have developed a device for removing plaster casts from broken limbs, with speed and with no danger or discomfort to the patient.

It operates by wires embedded in the cast and means for pulling the wires outward through the cast so as to sever it, much as some magazine wrappings are severed by pulling a thread embedded in the paper.

The G. E. X-ray Corp will soon have this on the market.

Magnet Motor

We have developed a very simple motor for producing, without gears, low speed rotary motion and high torque. The motor is simply a small solenoid magnet with its core connected to a band passing over a driving wheel and supported at the far end by a spring.

The 60 cycle vibration of the core imparts a one-way movement to the wheel, just as if a pawl and ratchet were used.

Photoflood Lamp Control

We have developed for photographers' use a photoflood lamp control, comprising a relay actuated by the camera shutter control, so that a group of lamps is thrown from series to parallel connection and thus gives a large increase of light during the instant the shutter is open.

Flexible Glyptal

Development of flexible glyptal for applications where its outstanding characteristic of resistance to oil and other solvents, to corona, ozone, and heat, is advantageous, has been continued.

Oil-proof gaskets, printing rolls, and cable insulation are among the applications being worked upon.

A flexible glyptal varnish has been developed which may be applied to rubber as a coating for protection against oil or ozone.

Casting Resin

A new type of glyptal-catalyzed phenolic resin has been developed which may be cast in the liquid state into molds or around forms or coils, and then cured.

It combines the durable and resistant qualities of glyptal with the quick curing properties and ease of handling of phenolic resins.

The final state may be varied in hardness or flexibility by varying the original composition. The cured resin is readily machined.

Premix Board

Premix boards, made by the incorporation of phenolic resin with paper pulp, followed by formation into press board, is in production for refrigerator strips.

Cheaper filling materials, such as asphalt and mixtures of asphalt and rubber, have also been made.

General Insulation Problems

A general study is being carried on to determine the mechanism of dielectric loss, so that methods for diagnosing insulation deterioration and improving insulation quality may be developed. Specific work has been done to correlate the oxidation of oil, resistivity and dielectric loss in high tension cables.

Fans

As a result of our work and that of the General Engineering Laboratory, fan design and theory have advanced to a point where we are ahead of all competitors in this field.

More efficient and quieter fans are being applied to various lines of motors, and as a result one line of motors has had its over-all efficiency increased 3% and its noise greatly reduced.

Balancing

Small balancers for fractional horsepower motor work have been built and are in operation.

The automatic balancing principle has been applied to such precision machines as grinders and strip steel polishers.

In this application, the essential parts of the balancer are permanently built into the grinding machine so that the grinding wheel and spindle may at any time be rebalanced in a few seconds without stopping the machine.

A portable balancing outfit for use in shops and in the field has been produced. By means of it any large motor or generator can be balanced accurately in its own bearings at operating speed in three runs.

This is in contrast with uncertain balance obtained in 50 to 100 runs by the old method used at Schenectady for large machinery.

Operation of the apparatus, which is used in connection with a standard work sheet and vector diagram, is easily mastered by an intelligent mechanic.

Mercury Boiler Experimental Work

We have cooperated with the Turbine Engineering Department in the development of a boiler feed pump for mercury, in pickling the boilers in Hartford and in Kearny, and in other ways, and with Mr. Emmet in developing and testing a new and simplified boiler design of his.

We are redesigning the mercury vapor detectors and mounting them on boiler-room control panels in Kearny and in the Schenectady plant. We are also continuing our study of the problem of detection of small leaks in boilers and minimizing the loss of mercury when leaks occur.

Non-Linear Circuits

These circuits, with sequence control, were shown last year in connection with a G. E. monogram sign. Cost analysis later showed that for small signs this sequence circuit is more expensive than a mechanical flasher.

The most favorable field now seems to be in large signs. The sequence circuit has been applied to the large G. E. sign on Building 37 in Schenectady and to those in Chicago and Detroit.

The non-linear circuit apparently has various applications in railway signalling. These are being developed and tested.

For temperature control, a new circuit has been developed in which the output of a themocouple saturates a non-linear reactor in such a manner that enormous power amplification is obtained.

Short Wave Work

In collaboration with Mr. C. W. Rice, we are developing a special magnetron oscillator which has already been shown capable of going down to very short wave-lengths—even as short as 1 cm.

Much work remains to be done to establish the conditions under which this oscillator can be made to develop its maximum energy output. It seems to take us into a short wave field unattainable by other known types of oscillator.

Sodium Nitrate Crystals

Both because of our interest in crystal growth, and because the crystals may have a profitable sale as light polarizing prisms, we have been learning how to grow large sodium nitrate crystals.

X-Ray Research on Plants

The laboratory greenhouse, with its thermostatically controlled electric heating and automatic ventilating system, has been operated throughout the year, and has served to demonstrate the reliability of this method of maintaining proper temperature under all weather conditions.

It has also been helpful in furnishing data on current consumption.

The greenhouse has been used continuously for the propagation of plant material which has been exposed to radiations—mainly X-rays.

The limit of tolerance to X-rays for a large number of varieties of flower and vegetable seeds has been determined.

The effect upon certain plants, after germination of the seed, has been to give us new and possibly valuable plant varieties. If, as we hope and expect, some of these breed true, we shall be able to patent them.

IN WHICH WE REVIEW SOME OF OUR
1932 ADVERTISING

"IN WARFARE OR IN BUSINESS

A business organization is like an army. It consists of units co-operating together in the battle for their common cause. Armies win battles by units co-operating—not by obstructing each other. A business organization's battles must be won on the same basis. Our policies are such that a co-operative spirit throughout our entire factory and dealer organization is the normal order of the day."

Substitute the word "Industries" for "Business Organizations" and this advertisement exemplifies the present trend.

UNIVERSAL COOLER CORPORATION
DETROIT, MICHIGAN BRANTFORD, ONTARIO

MANUFACTURERS OF A COMPLETE LINE OF HOUSEHOLD AND COMMERCIAL REFRIGERATION EQUIPMENT

AIR CONDITIONING

263 Tons of Air Conditioning Installed In Detroit This Past Summer

By John T. Schaefer
(See Tabulation of Installations at Right)

DETROIT—During this past summer 37 installations of air-conditioning equipment were made in connection with electric refrigeration in the city of Detroit, according to a survey completed last week among the leading installers. Total capacity of refrigeration equipment serving these installations is 263 tons.

So far as can be determined, these figures include all electrically refrigerated air-conditioning installations made here through last week. A very few installations were made with ice refrigeration, and a few more using deep well water for cooling, as Detroit water is cold enough to produce considerable cooling if the wells are driven quite deep. Ice refrigeration for air conditioning made less headway this season than last year.

30-Ton Job Largest

As shown in the tabulation at the right the largest Detroit installations were 30-ton equipment placed in Rheames restaurant (Universal Cooler), Economical-Cunningham Drug Co. (Frigidaire), and in the Trans-Lux theater (Universal Cooler). These were all refrigerated with three 10-ton condensing units.

From the standpoint of number of installations made, the market for air conditioning offices leads all others, there being 12 offices which purchased air conditioning this year. Restaurant cooling, however, required a great total refrigeration capacity (82 tons as compared with just half that amount in all offices).

Residence Cooling

It is interesting to note that Frigidaire reports several small installations for cooling individual rooms in Detroit residences, indicating that residential air condtioning is not as far off as many people think.

It is also interesting that direct expansion of refrigerant in coils was the system of cooling in every single installation. Floor-type cooling cabinets were used in most instances, although the larger installations usually employed overhead store-type cooling coils or central systems with cooling coils installed together.

In all but five cases, refrigeration compressors were installed in the basement of the establishment, the five exceptions being made where it was more convenient to place them elsewhere. A total of 52 compressors were installed.

Freon refrigerant was used in all but four installations. The four exceptions are methyl chloride installations at the Federal Motor Truck Co., the Ray Day Piston Co., Lewis Brothers undertaking parlor, and the Goody Nut Shops.

Year 'Round Equipment

A number of this year's Detroit installations were equipped for heating and humidification during the winter with the same apparatus, while nearly all have provision for cleaning the air with filters all year 'round. In a number of instances where large year 'round installations were made, the refrigeration manufacturer took the complete air-conditioning contract, designed the entire system, and sub-let the heating, fan, and duct work to outside firms.

Practically all installations were made by three companies, Carrier, Frigidaire, and Universal Cooler, other factors being too new in the Detroit field to have made significant progress this year.

This survey was finished last week, and should not be considered as representative of a complete year's business, because there are a few prospective installations pending which may materialize before the season is over.

Survey of Detroit Air-Conditioning Installations in 1933

Purchaser and address	Make of Refrigeration Equipment	Tons of Refrigeration	No. of Compressors	No. of Cooling Units	Location and Type of Cooling Units
Offices					
A. & P. Tea Co., 5470 Hecla Ave.	Universal Cooler	1½	1	2	Carrier cabinets on second floor.
J. S. Bache, 144 Penobscot Bldg.	Frigidaire	1	1	1	Unit cabinet.
Cadillac Motor Car Co., Clark Ave. at Michigan.	Frigidaire	7½	1	6	Unit cabinets in executive offices.
Chrysler Motor Car Co., 341 Massachusetts Ave.	Frigidaire	3	1	1	Central system.
Detroit Edison Co., 200 Second Ave.	Universal Cooler	10	1	10	Six Carrier cabinets with heating and outside air connections in customer's service division; one in general accountants office; one in sales manager's office; and two coolers only in customer's service division.
Detroit Wax Paper Co., Pleasant Ave. and M.C.R.R.	Frigidaire	7	3	4	Unit cabinet & central system.
A. G. Douglass (private office), General Motors Bldg.	Frigidaire	1	1	1	Unit cabinet.
Eclipse Counterbore Co., 7410 St. Aubin St.	Universal Cooler	5	1	1	Central duct system with Conditioned Air Corp. two-evaporator cooling unit.
Federal Motor Truck Co., 5780 Federal	Carrier	2	1	2	Unit cabinets in private office.
Parker Rust Proof Co., 2177 East Milwaukee Ave.	Frigidaire	1	1	1	Unit cabinet in president's office.
Ray Day Piston Co., 6656 Walton Ave.	Carrier	1	1	1	Unit cabinet.
Whitehouse & Co., Penobscot Bldg.	General Electric	1	1	1	Room cooler cabinet.
Restaurants					
Fort Shelby Hotel, Lafayette & Cass	Frigidaire	10	1	3	Overhead cooling units.
Fischer's German Restaurant, 1250 Washington Blvd.	Carrier	10	3	1	Central duct system. Air distributed from air-cooling unit in basement through ducts to Carrier ejector slotted outlets on first-floor ceiling.
Rheames Restaurant, 33 John R. St.	Universal Cooler	30	3	1	Central system, three cooling coils in air chamber.
Fred Sanders, Eaton Tower Store	Carrier	12	4	1	Central system using Carrier's "Store Weathermaker." Distribution through ejector type outlets.
Stouffer's, Washington Blvd. & Clifford	Frigidaire	20	2	6	Central system, six 3-ton Frigidaire cooling coils and heating coils in air-conditioning chambers.
Residences					
C. E. Dawson, 19219 Strathcona	Frigidaire	1	1	1	Unit cabinet in bedroom.
C. S. Robins, 17154 Muirland Ave.	Frigidaire	1½	1	2	Unit cabinet in living room and in bedroom.
A. J. Trumbull, 1851 Wellesley Drive	Frigidaire	1	1	1	Unit cabinet in bedroom.
C. E. Wilson, Bloomfield Hills	Frigidaire	1	1	2	Unit cabinet in library and in bedroom.
Abner Wolf, 12703 Broadstreet	Frigidaire	1	1	1	Unit cabinet in bedroom.
Drug Stores					
Economical-Cunningham Drug Co., Griswold & Michigan	Frigidaire	30	3	12	Central system with air-conditioning chamber housing 12 Frigidaire coils.
Economical-Cunningham Drug Co., Dexter & Webb Ave.	Frigidaire	7½	1	2	Suspended unit coolers.
Shapero Drug Co., First National Bank Bldg.	Frigidaire	10	1	3	Suspended unit coolers.
Jewelry Stores					
Engass Jewelry Co., 223 Monroe Ave.	Frigidaire	1	1	1	Unit cabinet.
Friedberg's Jewelry Co., Grand River and Griswold	Frigidaire	10	1	5	Unit cabinets.
Sallan's Jewelry Co., Grand River and Woodward	Frigidaire	6	2	3	Overhead store cooling units.
Clothing Stores					
Whaling's, 617 Woodward	Universal Cooler	5	1	1	Overhead cooling unit mounted above front door.
Russek's, 1448 Woodward	Frigidaire	10	1	4	Unit cabinets in first-floor fitting rooms and mezzanine.
Theaters					
Punch & Judy, Grosse Pointe	Universal Cooler	10	1	6	Central system, housing 6 coils, 3 in air stream, 3 submerged in water.
Trans-Lux, Woodward & Grand Blvd.	Universal Cooler	30	3	3	Central system housing Trane coils.
Undertaking Parlors					
Hamilton Bros., 2975 Cass Ave.	Frigidaire	3	1	3	Unit cabinets.
Lewis Bros., 7739 John R. St.	Carrier	3	1	1	Central system operating in basement.
Miscellaneous					
Maude Fleming Beauty Parlor, 1230 Washington Blvd.	Universal Cooler	5	1	1	Central system using Trane cooling coil.
Goody Nut Shop, United Artists Bldg.	Carrier	3	1	2	Two overhead unit coolers.
Radio Station "WJR", Fisher Bldg.	Frigidaire	1	1	1	Unit cabinet.

Restaurant Trade Boomed by G-E Air Coolers

CLEVELAND—Installation of General Electric air-conditioning equipment has helped to triple the volume of business at Crosby's restaurant located at Euclid and 105th Sts., in this city, according to Mrs. E. Crosby, proprietress.

The sale of air-conditioning equipment was a demonstration of how distributing organizations can capitalize on satisfied users of other types of commercial refrigeration equipment. The Crosbys had been using a G-E commercial storage cabinet for some time, and when they got to thinking in terms of air-conditioning equipment they turned to Electrical Housekeeping, Inc., G-E distributor here.

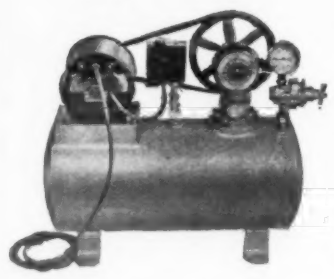
The fame of the air-cooled dining room spread so fast that in less than a month's time there have actually been standing lines at the door of the restaurant on hot days, Mrs. Crosby relates.

The G-E air-conditioning equipment which has been installed consists of four wall-type units and three cabinet units for floor mounting. Cooling is accomplished by direct expansion of the refrigerant in coils located within the unit, air circulation being accomplished by means of fans in each individual unit conditioner.

The wall-type units have been set in the walls of the main dining room, with only the grille work exposed. The floor-type units are installed in the private dining rooms.

A G-E CM-10 compressor with 10-hp. motor furnishes the refrigerating load, with individual suction and liquid discharge lines running to each unit in the system. The system is manually controlled, with a starting switch on the street-level floor. Individual shut-off valves make it possible for any of the units to be cut out.

SCHAEFER'S OILLESS BEER PUMP

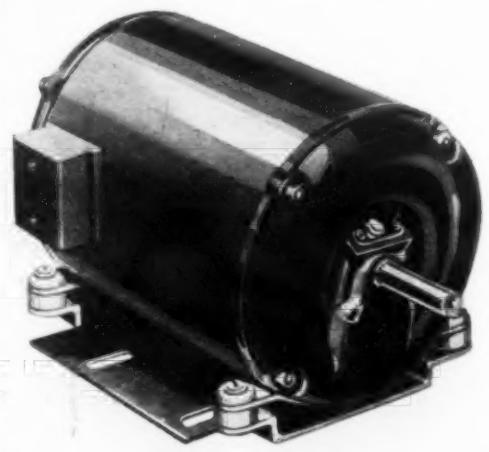


A radical departure from the conventional air compressor.

This pump was designed for beer pressure work and will give years of satisfactory automatic service.

A ready market awaits the live distributor. Write for prices and discounts.

Manufactured by
HAROLD L. SCHAEFER, INC.
1620 Harmon Place
Minneapolis, Minnesota



You Can Now Have A BUILT-IN CAPACITOR MOTOR with 110-220 Volt Interchangeable Single Phase

Howell engineering adds another feature to the built-in capacitor motor in making possible its use with either 110 or 220 volts by a slight change in connections.

This exclusive Howell feature is added to the other desirable Howell features such as simplicity of parts (capacitor is mounted inside the motor frame), quiet operation, protected frame, high efficiency and high starting torque.

Let our engineers show you how Howell motors are particularly adapted to the needs of commercial refrigeration machines as well as domestic units.

Howell Electric Motors Co., Howell, Mich.

Pioneer Builders of Capacitor Start Motors

Howell Sales and Service in over 50 Principal Cities

AIR-CONDITIONING EXHIBIT HELD BY NEWARK UTILITY

NEWARK — Ten air-conditioning distributors exhibited their equipment at the Public Service Electric & Gas Co. here Aug. 1 to 5.

Companies represented were: General Electric Co., Frigidaire Corp., Westinghouse Electric & Mfg. Co., York Ice Machinery Corp., Air Controls, Inc., Strang Air Conditioning Corp., Ilg Electric Ventilating Co., Campbell Metal Window Corp., and Grinnell Electrical Mfg. Co.

NAME BOSTON DISTRIBUTOR FOR WURLITZER

NORTH TONAWANDA, N. Y.—The Hub Cycle and Radio Co. of Boston has recently been appointed Wurlitzer distributor in New England territory.

BEER COOLING

Beer Cooling and Handling Methods Explained at Detroit Meeting

By Phil B. Redeker

DETROIT—Beer is a food which is much more susceptible to spoilage than milk, and therefore greater care must be taken to preserve it properly for retail consumption, distributors and retailers of beer learned at a meeting held Thursday night in the Book-Cadillac hotel here under the sponsorship of the local branch of Frigidaire Corp.

Methods of handling beer were discussed by representatives of the brewing and beer cooling industries. L. R. Gault, commercial manager of the local Frigidaire branch, acted as chairman of the meeting.

"Positive temperature control is one of the principal reasons why mechanical refrigeration is the superior method of cooling beer," declared T. A. Farrell, east central regional manager for Frigidaire Corp.

"Beer must be kept at a uniform temperature at all times to preserve the qualities which make for 'good beer'," Mr. Farrell stated. "Beer is not like many foods which may be carelessly preserved, but which may be all right after they are cooked. Once beer has warmed up and gone flat you can't revive its qualities by cooking it."

Retailers should be careful to obtain cooling equipment that will take care of their peak demands, the Frigidaire representative warned. Capacity should not be figured on the total amount of beer that will be sold in a day, but on the basis of the maximum amount of beer that will be sold in the busiest hour of the day.

Mr. Farrell pointed out some of the advantages of the newer type of beer cooling equipment which employs the direct application of refrigerants for rapid cooling. Frigidaire's draft beer cooling unit requires only 18 ft. of beer coil compared to the 40 ft. or more usually specified in the water bath method, because the speed of cooling is greater with the new cooling unit, the speaker declared.

John Bodenstab, secretary of the Michigan Brewers Association, pointed out to the audience that an adequate knowledge of the correct methods of handling beer at retail is generally the difference between success and failure in a beer dispensing operation.

Novices in beer retailing very seldom know anything of the principles of tapping beer correctly, and as improper tapping results in the loss of the carbonic gas in the beer with a consequent loss of taste and quality the retailer may soon lose his trade, the speaker declared.

Beer must be kept under a uniform pressure. No more than 15-20 lbs. pressure should be employed in the kegs as pressures of 25 to 30 lbs. force leaks in the keg and cause losses through overflowing glasses.

Mr. Bodenstab made the following suggestions in regards to methods of handling beer:

"The pressure should be turned on as soon as the tap rod is inserted. Where the beer is stored or pre-cooled in the basement at a lower level than the dispensing unit the natural reduction in pressure during the upward flow of the beer will reduce it to 6 or 7 lbs. at the spigot, which is all right.

"However, if many present day installations the kegs are stored or cooled on the same level as the dispensing unit. Thus the 15 lbs. pressure exerted in the keg causes the beer to flow too fast at the spigot, and the first then the novice does is to reduce the pressure on the keg.

"When he does this the natural gases rise from the beer so that after a quarter of the keg has been emptied the beer goes flat.

"In installations where the kegs are on the same level with the dispensing equipment there should be some device in the line between the keg and the spigot to reduce the pressure.

"There is no economy in saving refrigeration needed for the proper cooling of beer, the temperature must be kept below 50° F. or certain losses are inevitable.

"All keg or barrel beer should come to rest at least 12 hours before it is tapped. A retailer should never tap a keg until he has first examined the large rubber washers in the Peerless tap at the bottom of the rod as well as the rubber check valve on the side of the Peerless tap through which the air or the gas pressure flows.

"These check valves are of great importance; they should be changed frequently. Leaking faucets cause loss of carbonic gas, dripping of beer from the faucets indicates worn out washers.

"Most of the retailer's troubles with loss of gas or air are due to leakage, therefore, all connections should be examined very closely from time to time. The connections should be drawn up tight as they work loose through vibration.

"Coil cleanliness is very important in beer cooling. Many of the old time saloonkeepers cleaned their entire beer drawing system every morning and as a result their reputation for serving a good glass of beer proved a valuable asset.

"Yeast formation with the coils or faucets sours quickly, has a bad odor, and gives the beer a sickening sweet taste and a cloudy appearance. Beer drawn through coils not properly cleaned becomes "skunky" and will drive away trade as quickly as would tainted meats.

"When carbonic gas is used for drawing beer the kegs must be kept at a temperature of 42° F. or lower, or the gas will not be absorbed by the beer, but will act only as a pressure medium to elevate beer to the faucets. Carbonic gas sometimes freezes at the outlet from the 'tank.' When this happens the control valve should be open and shut with a quick motion, and the trouble will generally correct itself.

"Rubber hose connections are not recommended as they soon become foul. Rubber hose connections for air or gas are not so bad, but copper tubing is far better, more sanitary and leak proof."

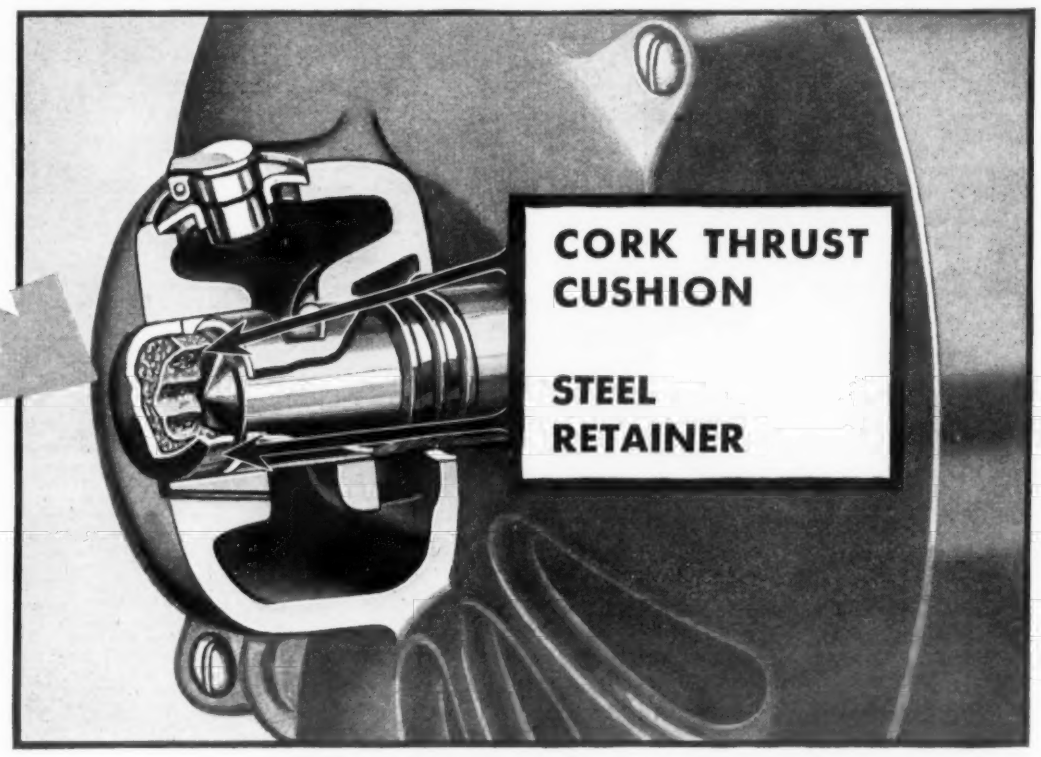
A. C. Friemann, sales engineer for Frigidaire Corp., closed a meeting with a demonstration of some of the properties of Freon, the refrigerant which is used in Frigidaire beer cooling equipment.

An exposition of Frigidaire beer cooling equipment, beer equipment fittings, and coil cleaners was set up in the hall in which the meeting was held.

Latest in Home Appliances

A Kelvinator compressor provides refrigeration for this private bar in the basement recreation room of the home of Bruce Dodson, Kansas City insurance company head. A Temprite unit cools the draft beer.

NO END-PLAY NOISE WITH DELCO MOTORS



The automatic end-play take-up used on Delco motors eliminates all objectionable end-play noise. Any longitudinal movement of the rotor is cushioned by the cork bumper which presses against the shaft. There is no need of replacement or adjusting, as the cork is properly lubricated and the wear is negligible. Millions of Delco motors with this cork end-play cushion are operating successfully in users' homes. . . . This is an exclusive feature of Delco motors. Before you place a new product in the field, eliminate the worry of end-play noises by using Delco motors.

NRA MEMBER U.S. WE DO OUR PART

Delco motors are on display at A Century of Progress

DELCO PRODUCTS CORPORATION
DAYTON, OHIO

PATENTS

ISSUED AUG. 29, 1933

1,924,117. STORAGE AND DISPLAY CABINET. Edward M. Fritz, Edwin K. Thomas, and Frank W. Thomas, Grand Rapids, Mich., assignors to Grand Rapids Cabinet Co., Grand Rapids, Mich., a corporation of Michigan. Application April 13, 1931. Serial No. 529,662. 5 Claims. (Cl. 62—89.5.)

1. A low temperature display and storage cabinet comprising a box-like unit formed of walls and a bottom rigidly held together, a water tight container adapted to snugly engage interiorly of said walls and bottom, inner walls located a short distance from the walls of the water tight container whereby a water tight chamber is formed thereby, cooling pipes located in said chamber, cooling fluid surrounding said cooling pipes, partitions adapted to be received crosswise and interiorly of the cabinet, means to removably mount the partitions in place, a tray slidably mounted within said cabinet, a transparent member longitudinally located to one side of the top of said cabinet and doors adapted to tightly close the balance of the top of the cabinet.

1,924,118. STORAGE AND DISPLAY CABINET. Edward M. Fritz, Edwin K. Thomas, and Frank W. Thomas, Grand Rapids, Mich., assignors to Grand Rapids Cabinet Co., Grand Rapids, Mich., a Corporation of Michigan. Original application April 13, 1931. Serial No. 529,662, and in Canada May 28, 1931. Divided and this application May 9, 1932. Serial No. 610,092. 13 Claims. (Cl. 312—126.)

4. A low temperature display and storage cabinet comprising a box-like unit formed of walls and a bottom rigidly held together, partitions disposed cross-wise and interiorly of the cabinet, means to removably retain the partitions in place, a tray slidably mounted within said cabinet above said partitions and including a portion engageable with the cabinet to form therewith a separate display compartment, a transparent member longitudinally located to one side of the top of said cabinet above said tray and doors adapted to tightly close the balance of the top of the cabinet.

1,924,120. OZONE APPLICATOR. Milton E. Hanson, Collingswood, N. J., assignor to B. F. Sturtevant Co., a Corporation of Massachusetts. Application Jan. 29, 1931. Serial No. 512,079. 8 Claims. (Cl. 101—416).

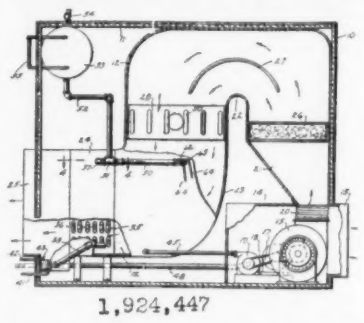
7. A fluid applicator, comprising a tube adapted to conduct a fluid and having a channelled radial extension to form a nozzle, a casing surrounding said tube in spaced relation and adapted to conduct a temperature controlling agent adjacent to said tube, heat-insulating material surrounding said casing, said casing also having a radial extension projecting through said heat-insulating material and provided with a relatively wide channel through which said tube extension passes in spaced relation, said tube and casing extensions terminating in adjacent oppositely directed arcuate flanges, and means to bind said flanges together.

1,924,225. REFRIGERATOR OF BRINE-CIRCULATION SYSTEM. Kanichi Yamane, Shimizuzaka, Kifune-Cho, Shimonoseki-Shi, Yamaguchi-Ken, Japan. Application Jan. 16, 1933. Serial No. 652,052, and in Japan Aug. 16, 1932. 2 Claims. (Cl. 62—114.)

2. In a refrigerator of brine-circulation system of the kind described, a tank of circulating cold brine therein which is made by enclosing a frame made by bending a pipe in four-sided shape with sheet metals and provided with a number of stiffeners attached alternately to said sheet-metals forming side walls of the tank so as to form a number of conduits in the tank and inlet and outlet casings communicating with said conduits through inlet and outlet holes provided in the side walls of the tank respectively and having divisional guide plate for securing the uniform circulation of brine throughout the conduits.

1,924,447. AIR CONDITIONING APPARATUS. Leo. L. Landauer, Dallas, Tex. Application Nov. 7, 1932. Serial No. 641,546. 10 Claims. (Cl. 257—9.)

1. In an air conditioning device, a housing, an undulating flue extending through said housing, means for forcing air currents through said flue, a heater arranged



1,924,447

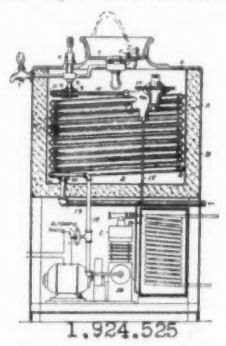
adjacent the discharge end of the flue in the path of the air currents, and a preheater disposed in the flue in advance of the heater and in the path of the air currents.

1,924,494. REFRIGERATING TRUNK FOR AUTOMOBILES. Urbain Gelinas, Montreal, Quebec, Canada. Application Aug. 26, 1929. Serial No. 388,597, and in Canada Aug. 7, 1929. 4 Claims. (Cl. 190—12.)

1. A device of the character described comprising a box-like body, a partition dividing the same into two compartments, means for accommodating ice and food in one of said compartments, and a grating at the side of said partition presented to the other compartment.

1,924,525. METHOD OF COOLING LIQUIDS. Halsey W. Taylor, Warren, and James T. Smith, Cleveland, Ohio; said Smith assignor to The Halsey W. Taylor Co., Warren, Ohio, a corporation of Ohio. Original application June 30, 1927, Serial No. 202,553. Divided and this application Oct. 1, 1928. Serial No. 309,592. 1 Claim. (Cl. 62—116.)

A method of cooling a liquid under draft, consisting in forming a tubular stream of liquid and subdividing said



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tubular stream into separate individual streams and co-incidently passing a refrigerating fluid centrally through said tubular stream and in establishing heat exchange relations with each stream intermediate the respective streams of liquid.

1,924,662. REFRIGERATING APPARATUS. Otto M. Summers, Dayton, Ohio, assignor to Frigidaire Corp., Dayton, Ohio., a coporation of Ohio. Continuation of application Serial No. 336,444, Jan. 31, 1929. This application Feb. 28, 1931. Serial No. 519,055. 9 Claims. (Cl. 308—12.)

1. In a motor-compressor unit, a driving member, a driven member, a support for said members, one or more rubber rollers, an inclined track, said rubber rollers and said inclined track cooperating to adjustably support one of said members upon said support, and means for maintaining the bodily movement of said last mentioned member in substantially a straight line comprising a guide rod attached to said member and a guide spool attached to said support.

1,924,770. ABSORPTION REFRIGERATING SYSTEM. Sigurd Mattias Backstrom, Stockholm, Sweden, assignor, by mesne assignments, to Electrolux Servel Corp., New York, N. Y., a corporation of Delaware. Application Oct. 20, 1931. Serial No. 569,917, and in Germany, Jan. 20, 1931. 5 Claims. (Cl. 62—119.5.)

4. In an absorption refrigerating system having an absorber and an evaporator interconnected for the circulation of inert gas, a conduit for gas connected to said absorber above the liquid level therein and having a portion extending downwardly below the liquid level, and a connection for liquid from the absorber to said portion of the gas conduit such that absorption liquid stands in said portion at the same level as in the absorber.

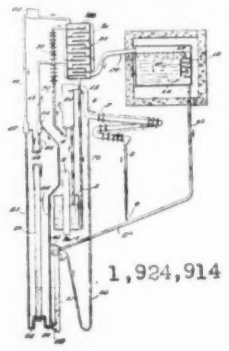
1,924,849. ADSORPTION SYSTEM. Bayard P. Fonda, Baltimore, Md., assignor to The Silica Gel Corp., Baltimore, Md., a corporation of Maryland. Application Oct. 21, 1931. Serial No. 570,207. 4 Claims. (Cl. 183—4.)

1. In a dehydrating system, in combination, a pair of adsorbers each having an inlet and an outlet, a heater for each inlet, single air delivery means always connected directly to both heaters, a dehydrated air discharge pipe, an activating air discharge pipe, a valve to selectively connect one absorber to each discharge pipe, and means actuated by operation of the valve to actuate the heater of the adsorber connected to the activating air discharge pipe.

4. In an adsorption apparatus, in combination, a pair of contiguous adsorber casings elevated above a base, a horizontal bed of absorbent material spaced from the top and bottom of each casing, an inlet tube through the bottom of each casing and extending through the bed therein, a heater housed in each tube, an outlet conduit from the bottom of each casing; a fan, a dehydrated air cooler and a valve on said base beneath said casings, a pipe connecting the fan to both of said tubes, an activating gas exhaust tube; said conduits, tube and cooler being connected to said valve, and means to actuate said valve to alternately connect the casing outlets to the cooler and exhaust tube.

1,924,914. ABSORPTION SYSTEM. Daniel F. Comstock, Boston, Mass., assignor, by mesne assignments, to Stator Refrigeration, Inc., a corporation of Delaware. Application May 8, 1929. Serial No. 361,273. Renewed Sept. 23, 1932. 19 Claims. (Cl. 62—119.)

1. Absorption refrigerating apparatus utilizing a refrigerant having a vapor pressure less than atmospheric pressure at 0°



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C., said apparatus comprising a substantially gas-tight fluid circuit, and means associated therewith automatically to exhaust non-condensable gases from the system to permit the maintenance of low pressures therein, said means including a heavy auxiliary fluid, means to lift said fluid to a point of gas entrainment, a tube of capillary dimensions arranged to receive alternate slugs of heavy liquid and bodies of gas from this point and to vent the same to a region of separation from which the gas is exhausted and the heavy liquid is recirculated.

1,924,988. QUICK FREEZING SYSTEM. Ralph V. Grayson and Edgar G. Ballenger, Atlanta, Ga.; said Grayson assignor to Patent and Security Holding Corp., Tampa, Fla., a corporation of Florida. Application Dec. 16, 1931. Serial No. 581,451. 17 Claims. (Cl. 62—104.)

10. Quick freezing system comprising means providing a refrigerating bath, means comprising a thawing bath, and means for transporting packages of the product to be frozen successively through said refrigerating bath and said thawing bath at a rate of speed to accomplish freezing of the product in its transit through the refrigerating bath, said transporting means including a conveyor and racks forming parts of said conveyor for suspending said packages in said baths.

15. Quick freezing system comprising a conduit for a circulating freezing medium, a part of said conduit including tunnels, the adjacent outer walls of which converge downwardly forming a chamber for solid refrigerant, the walls of said tunnels having a laterally undulating contour.

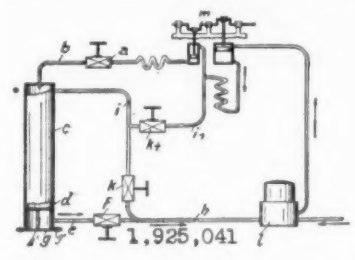
1,925,033. METHOD AND APPARATUS FOR RAPID FREEZING AND HANDLING OF COMESTIBLES. William J. Finnegan, Atlanta, Ga. Application April 3, 1931. Serial No. 527,587. 37 Claims. (Cl. 62—114.)

1. Apparatus for refrigerating a cartridge comprising a guide tube for the reception of the cartridge, means for flowing a heat transfer vehicle over the adjacent walls of the cartridge and guide tube, and means for flowing a refrigerating medium over the external surface of the guide tube.

13. The method of freezing comestibles and the like consisting of flowing a heat transfer vehicle through a restricted area with containers for comestibles withing the restricted area, and completely enveloped by the heat transfer vehicle, and simultaneously flowing a refrigerant medium in close relation to the heat transfer vehicle.

1,925,041. METHOD OF PRODUCING CARBON DIOXIDE IN SOLID FORM. Ernst Berthold Auerbach, Berlin, Germany. Application Sept. 16, 1929. Serial No. 393,094, and in Germany April 27, 1929. 6 Claims. (Cl. 62—121.)

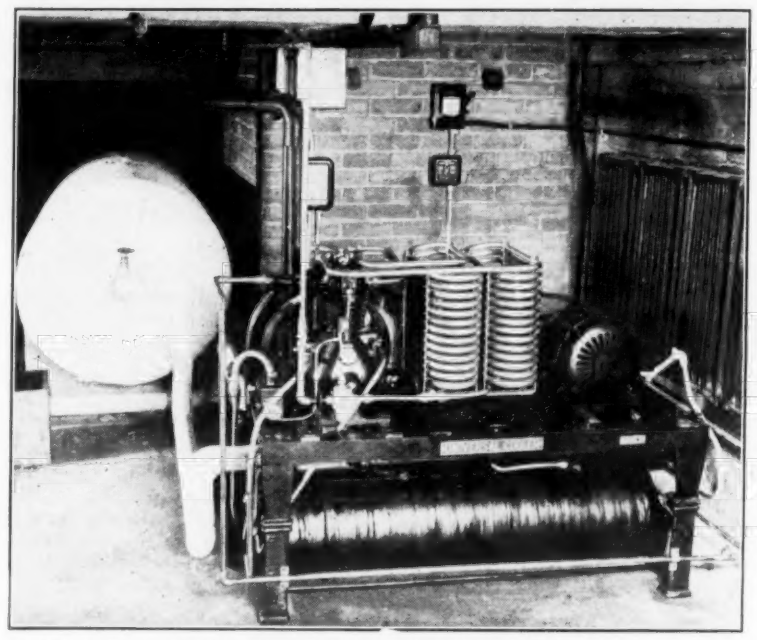
1. A method of producing solidified carbon dioxide which consists in causing an integral mass of solidified carbon dioxide to contact with a body of liquid carbon dioxide which is maintained under a pressure which is substantially above the triple point pressure, while permitting the liquid carbon dioxide to evaporate at a part of the wall of said mass of solidified carbon



1,925,041

dioxide so as to reduce said pressue only at said part and to lower the temperature of the mass, so that the size of the mass is increased along that portion of its wall which is subjected to said pressure by the solidification of the liquid carbon dioxide in contact with said mass under said pressure, said pressure being sufficient to cause the liquid carbon dioxide to freeze in a single stage from the liquid state to the dense solid state.

Compact Water Cooling Job



In this Universal Cooler installation cooling is accomplished by a counter-flow system in the long black cylinder underneath the compressor.

* * *

UNIVERSAL UNIT COOLS WATER IN BUHL BUILDING

DETROIT—A Universal Cooler 3-hp., 3-cylinder water-cooled condensing unit with special water cooling attachment has been installed in the 28-story Buhl building here to cool water for bubblers on each of the 27 stories of the building which house offices and commercial operations.

The Universal Cooler unit has been placed in its own "pent-house" on the twenty-eighth floor where it operates in conjunction with a double water circulating system operating through a 220-gal. storage tank housed in the same place.

The special chilling coil, which is slung under the frame of the condensing unit, is fitted with cooling coils which cool the entering water down to a pre-determined temperature of 50° F.

The water is then directed to the storage tank, from where it is fed to the system as needed. The insulated storage tank is provided to take care of abnormal peak loads. Water is circulated through the system by means of a ¾-hp. pump.

Crane porcelain bubbler fountains provide drinking water facilities on each floor of the building.

The installation was supervised by William Higham, commercial engineer of Universal Cooler Corp.

STOCKHOLDERS ASK NEW MONTGOMERY WARD PLAN

CHICAGO—A stockholders' association purposing to "revise the management policies" of Montgomery Ward & Co. has been granted a charter, according to an announcement received Thursday from Springfield, the state capital.

Head of the association is Joseph Zook, San Francisco, former treasurer and director of the mail order concern, who broke with the management in 1920.

Zook said the association would take immediate steps to place on the Montgomery Ward directorate men of its own choosing "qualified by actual experience in mail order, retail merchandising and manufacturing lines."

He attacked the present executives as "investment bankers and other unversed in the mail order field."

Sewell Avery is president and chairman of the board of Montgomery Ward, and Silas Strawn is chairman of the executive committee.

CZECH ENGINEER STUDIES FRIGIDAIRE'S METHODS

DAYTON—The manufacturing methods adopted by Frigidaire Corp. in its plants in Dayton were the subject of a study last week by John Braz, consulting mechanical engineer for the department of commerce of Czechoslovakia.

Mr. Braz is making a tour of the largest American industrial plants preparatory to reporting to President Masaryk on the best ways in which the factories of his native country may be improved.

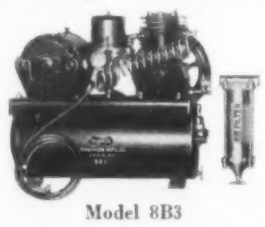
Deluxe Contest Group To Visit Factory

DETROIT—First large group of Kelvinator salesmen to qualify for a trip to the factory in the Deluxe sales contest will reach here Oct. 15, it has been announced by Kelvinator officials.

Dates for the arrival of other groups will be announced later so that each contest winner will be able to select the trip most convenient for him.

To qualify for the trip a salesman must (1) sell 100 cu. ft. of DeLuxe models; (2) be a member of International Kelvinator Sales Club in good standing.

BRUNNER BEER PUMPS *are*
Sanitary, Compact, Noiseless and Complete



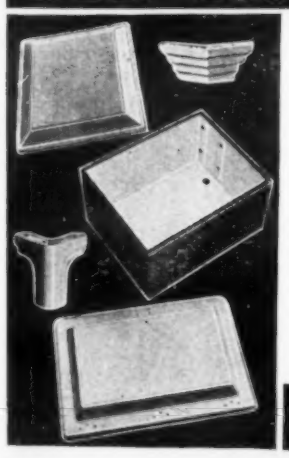
Model 8B3

Write for Information

BRUNNER MANUFACTURING CO.
UTICA, N.Y.

One of a complete line of five Brunner models with capacities of from three to twenty kegs. Price $76.50. Less Filter $69.50.

DEEP DRAWN STAMPINGS



That Add Beauty and New Features

Our enormous equipment produces massive, completely press-formed, refrigerator cabinet shapes of accurate dimensions at low costs—ready for assembly with other parts in your plant. Design your cabinets to meet the modern trend and let Truscon furnish parts for which you are not equipped. We serve several leading manufacturers.

Mail blue prints for quotations.

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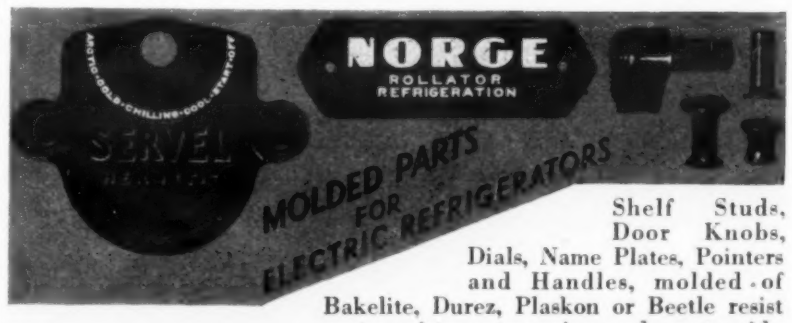


Shelf Studs, Door Knobs, Dials, Name Plates, Pointers and Handles, molded of Bakelite, Durez, Plaskon or Beetle resist rust, moisture, corrosion and most acids. Manufacturers of ELECTRIC REFRIGERATORS AND AIR CONDITIONERS should have our Catalogue No. 101. Sent free on request.

CHICAGO MOLDED PRODUCTS CORP.
2155 Walnut St. Chicago, Ill.

"RAPIER-LIKE"

That describes the quick thrust and withdrawal of heat when a PEERLESS FIN COIL is used.

Because the coil is constructed of aluminum fins, with no heavy, solder-encrusted return bends—there is no MASS of metal to cool before cooling the box—and no MASS of metal to warm up before fins can defrost.

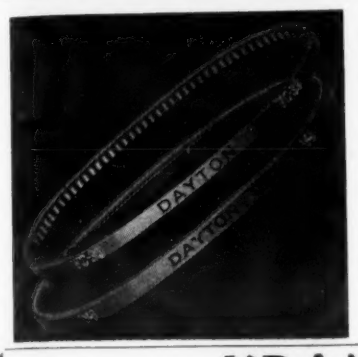
Quick Cooling — Quick Defrosting — that is why

PEERLESS FIN COILS

are uniformly successful in all sections of the country.

Send for catalog!

PEERLESS ICE MACHINE CO., 515 W. 35th St., Chicago, Ill.



Dayton V-Belts

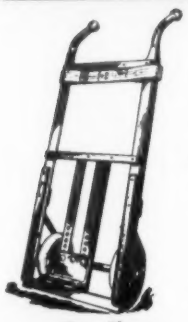
For all makes and types of refrigerators. There is a stock near you. Ask for price list and name of your nearest distributor.

THE DAYTON RUBBER MFG. CO.
Dayton, Ohio
The World's Largest Manufacturer of V-Belts

KRAMER DOMESTIC

QUICK FREEZ EVAPORATORS
all copper!
Continuous Tube Design
FIVE STOCK MODELS — FROM TWO TO FIVE TRAYS.
(Write for Catalog)

TRENTON AUTO RADIATOR WORKS
241 West 68th St., N.Y.C. Trenton, N. J. 5145 Liberty Ave. Pittsburgh, Pa.



Type X

The Dayton CARRIER Truck

Deliver Your Refrigerators on Rubber

Type X has 53 inch Handles and 8 inch Rubber Wheels. Type Y has 70 inch Handles, 5 inch Rubber Wheels and skids.

Type X with one strap $16.00
Type Y with one strap $17.50
f.o.b. Dayton

International Engineering Inc.
Dayton, Ohio
15 Park Row — New York

Type Y

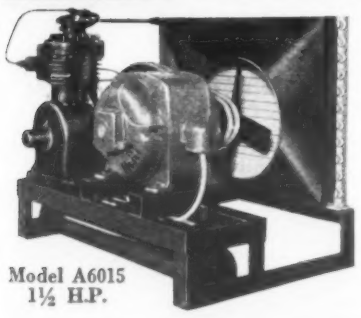
RACK'S KOILS KOOL

THE TRADEMARK OF FOUR
PACE SETTERS
IN COIL EFFICIENCY

SUR-E-FEX	Fin Coils
FAN-E-FEX	Diffusing Units
HUM-E-FEX	Non-Dehydrating Coils
SAN-E-FEX	Air-Conditioning Units

SEND FOR NEW CATALOG DESCRIBING THESE SENSATIONAL DEVELOPMENTS

REFRIGERATION APPLIANCES, INC.
H. J. KRACKOWIZER, Pres.
1342 WEST LAKE ST., CHICAGO



Model A6015
1½ H.P.

PARKER MANUFACTURING CO.

REFRIGERATION UNITS — 1-6 to 5 H.P.
AMMONIA - METHYL SO² - FREON

DEALERS WANTED

FACTORY
2625 Santa Fe Ave., Los Angeles, Calif.

Hurry—get your Copy of the new BEER COOLING Equipment Directory and Handbook

Free to subscribers with new or renewal orders

Containing complete detailed specifications of all leading makes of beer cooling equipment with general information on methods of cooling by mechanical refrigeration, the cleaning of beer pipes, a resume of state beer laws, and a directory of manufacturers of beer coolers and pumps. Paper cover, size 6x9 inches.

Special Trial Subscription Order

Business News Publishing Co.
550 Maccabees Bldg., Detroit, Mich. 1933

Enclosed find $1.00. Please enter my subscription to Electric Refrigeration News, the weekly newspaper of the industry, for a 17-week trial period and send me a FREE COPY of the new Beer Cooling Equipment Directory and Handbook.

Name .....

Company .....

Street Address .....

City and State .....

☐ If you are already a subscriber to Electric Refrigeration News, check this square and your term will be extended for 17 weeks. ERN 9-13-33

QUESTIONS

Iso-Butane

No. 1363 (Dealer, Michigan)—"Please advise where we can buy Isobutane besides at the Copeland Refrigeration Co."

Answer—Carbide & Carbon Chemicals Corp., 30 E. 42nd St., New York, N. Y., or Matheson Co., East Rutherford, N. J.

Kercher Replacement Parts

No. 1364 (Dealer, California)—"Can you tell us where to buy replacement parts for the Kercher refrigeration system. We understand that this line has been discontinued, and we have a customer who wants us to repair his Kercher machine."

Answer—Try these suppliers of replacement parts:

Chicago Refrigeration Service Co.
360 E. Grand Ave., Chicago, Ill.
Home Appliance Service Co., Inc.
714 W. Market St., Greensboro, N. C.
Iceless Refrigeration Accessories Co.
2401 Chestnut St., Philadelphia, Pa.
Melchior, Armstrong, Dessau Co.
116 Broad St., New York, N. Y.
Refrigeration Service, Inc.
3109 Beverly Blvd., Los Angeles, Calif.
Refrigerator Parts Co.
2021 S. Michigan Ave., Chicago, Ill.

Refrigeration Schools

No. 1365 (Illinois)—"Where can we find a list of schools teaching electric refrigeration?"

Answer—See page 355 of the REFRIGERATION DIRECTORY and MARKET DATA BOOK.

Tube Benders

No. 1366 (Manufacturer, New York)—"Would you be kind enough to advise us who makes a portable tool for bending copper tubing up to and including ⅝-in. sizes?"

Answer—Imperial Brass Mfg. Co., 1200 W. Harrison St., Chicago, Ill.

Refrigerator Hardware

No. 1367 (Service company, North Carolina)—"Please let me know where I can buy hinges and latches for apartment house refrigerators."

Answer—See page 206 of the REFRIGERATION DIRECTORY.

Barostat

No. 1368 (Engineer, Tennessee)—"Please advise if the Barostat Co. of Boston is still making its snap-acting control."

Answer—Yes. The company's headquarters are at 141 Milk St., Boston, Mass.

Gas Masks

No. 1369 (Distributor, Nebraska)—"Will you kindly advise us of any companies making gas masks for refrigeration work?"

Answer—Two companies are supplying gas masks: Mine Safety Appliance Co., Braddock, Thomas, & Meade Sts., Pittsburgh, Pa., and Pulmosan Safety Equipment Corp., 176-A Johnson St., Brooklyn, N. Y.

Solid CO_2 Characteristics

No. 1370 (Engineer, Wisconsin)—"Can you give me the following information about solid carbon dioxide: 1. Latent heat per pound. 2. Volume per pound. 3. Size of cakes in which it is sold."

Answer—These characteristics vary according with the manufacturer of the product. Average values can be considered as follows:

1. Latent heat per pound is about 275 B.t.u. This includes the heat of sublimation plus the sensible heat absorbed in raising the temperature to 32° F.

2. Volume per pound is approximately 20 cu. in.

3. The usual size of cakes sold commercially is 50 lbs. This cake takes up a space approximately 10 by 10 by 10 in.

Norge Shipments for August Reported

DETROIT—Norge August shipments reached a level of 472 per cent compared with the like month of 1932, according to Howard E. Blood, president of Norge Corp.

"In June, we shipped 17 solid trainloads of Norge refrigerators," said Major Blood. "Another record was made in July when we shipped more units than we did in the entire last half of 1932. And Norge sales during the past 60 days were nearly five times those for the similar period last year."

COLUMNIST McINTYRE BUYS FRIGIDAIRE

NEW YORK CITY—O. O. McIntyre, author and columnist known throughout the country for his comments on "New York, Day by Day," has purchased a 17-cu. ft. General Electric Monitor Top refrigerator for his Park Ave. apartment.

N. Y. WESTINGHOUSE DEALERS ORGANIZE

ALBANY, N. Y. — To keep them apace with latest developments in merchandise and selling plans, dealers in three sections of the territory served by Albany's Westinghouse Electric Supply Co. have formed their own associations, according to F. W. Paul, merchandise supervisor of the wholesale organization.

The associations are the Hudson Valley Westinghouse Dealers Association for the territory adjacent to Poughkeepsie, Capital District Westinghouse Dealers Association for the Albany area, and Lower Adirondack Westinghouse Dealers Association for the Glens Falls territory.

Each of these organizations is supported by dues from its members, and membership is open to all classes of dealers selling Westinghouse merchandise within one of the outlined territories.

President of the Hudson Valley group is C. R. Coons of the Ulster Electric Service Co., Saugerities, and Wilford N. Borner, dealer in Staatsburgh, is secretary-treasurer.

Officers of the Capital District association are C. Homer Hook, Greenville, president; Eric Hall, Albany, secretary; and Kenneth Marcy, Chatham, treasurer. Ray Stevens of Greenwich is president of the Lower Adirondack organization, and J. E. Sullivan of Saratoga Springs is secretary-treasurer.

INDIANA SEEKS CONSUMER CLAUSE IN UTILITY CODE

WASHINGTON, D. C.—Gov. Paul V. McNutt of Indiana has asked President Roosevelt to include a consumers' clause in the proposed public utility code which would prevent utilities from using increased operating costs due to code provisions as an excuse for increasing rates or for refusing rate reductions that are due:

Gov. McNutt sent a telegram to the chief executive which followed closely upon the heels of a similar request sent to Gen. Johnson, Recovery Act administrator, by Sherman Minton, public counsellor with the Indiana Public Service Commission. The messages of both charged that utilities seek to forestall rate reductions on the grounds that the Recovery Act will result in increases in their operating expenses.

In his telegram the governor said:

"Obligations to several thousand users of public utility services in Indiana have impelled Sherman Minton, public counsellor on rate matters, to counsel with General Johnson and NRA on the need for a consumers' clause in public utility codes since additional operating costs are pleaded by signatories as reasonable excuse to deny rate reductions. In view of your sound position on utility questions and the unselfish patriotic objective of NRA, I cannot believe a public utility code is sound which does not include the consumer element. Justly due rate reductions would add to purchasing power of the family. Re-employment should be at expense of utility owners as it is with other industries. I heartily subscribe to the representations by Indiana public utility counsellor."

Louisiana Town Cuts Power Rates

OPELOUSAS, La.—Through efforts of Sam Kurtz, manager of Christman & Riseman Co., Inc., local Norge dealer, the city council here has effected a reduction of one-third on rates for all electric current supplied by the municipally owned plant to residences equipped with electric refrigerators.

Mr. Kurtz appeared before a special session of the council, stated that the average electric refrigerator's summer current consumption amounted to approximately $6, pointed to the health protection features of refrigeration, then asked for the reduction.

At the time of the appeal, there were approximately 175 electric refrigerators in use in Opelousas, which has a population of 6,000. Mr. Kurtz's dealership is under the supervison of Stauffer,, Eshleman & Co., Norge distributor in New Orleans.

KELVINATOR HOLDS BEER COOLING SCHOOL

HURON, S. D.—With the temperature at 110° a good part of the time, W. C. Stephenson, Kelvinator fieldman, recently held a beer-cooling school for members of the Northwestern Public Service Co. here. Those attending the school were:

Sales manager F. C. Elvig, Advertising Manager B. L. Palm, Purchasing Agent Carl Grothe, and Commercial Managers S. S. Schroeder, Ernest Jacobson, J. W. Harrison, Clem Guhin, Douglas Yaeter, G. G. McCarney, Glenn Dickinson, Howard Kindley, E. M. Nottestad, Cecil McCarney, C. C. Garrick, and R. L. Schwichtenburg.

CLASSIFIED

PAYMENT in advance is required for advertising in this column.

RATES: Fifty words or less, one insertion $2.00, additional words four cents each. Three insertions $5.00, additional words ten cents each.

REPLIES to advertisements with box numbers should be addressed to the box number in care of Electric Refrigeration News, 550 Maccabees Bldg., Detroit, Mich.

POSITIONS AVAILABLE

WANTED man with investment to take an interest in large middle west refrigeration service organization and to assume charge of service and installation departments. Must be experienced, willing to work and able to assume responsibility. Splendid opportunity for right man. Give age, experience and references. Replies will be held confidential. Box 586.

REPRESENTATION AVAILABLE

THE Facilities and Services of the Grand Central Purchasing Corp. with large showrooms located at 114 East 47th St., N. Y. C., are available to represent a substantial manufacturer of major or small electric appliances. The corporation has close contact with all classes of outlets in the metropolitan area and northern New Jersey for refrigerators, radios, washers, vacuums, mixers, etc.

Smith Heads Permutit Sales in West

NEW YORK CITY—Lawrence L. Smith has been appointed domestic sales manager of Permutit water softeners in the West and Southwest, and will have headquarters in Los Angeles, according to Oliver P. Harris, general domestic sales manager of the Permutit Co. here.

C. O. Kimball has been selected to represent the manufacturer in Maine and New Hampshire, and Hansing & Hanks has taken over distribution of Permutit water softeners in Bergen county, New Jersey. Eugene A. Cartar is head of a newly organized Permutit distributing organization in Wichita, Kan.

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Extra dry
ESOTOO
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LOWEST PRICES
FAST SERVICE
Write for New Catalog
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McCORD REFRIGERATION PRODUCTS

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Domestic Evaporators
Condensers
McCord Ice Trays
Spiral Finned Tubing
Spiral Copper Finned Iron, Steel or Copper Pipe

McCORD RADIATOR & MFG. CO.
DETROIT - - MICH.